COIN-OPS, CARTS AND COMPUTER SOFTWARE REVIEWS

VIDEO GAMES™

December 1983
U.S. $2.95
Canada $3.25
No. 15

COLECO'S GEMINI: THE KIDVID SYSTEM

COMPUTER INTELLIGENCE? FACT OR FICTION

THE NEWEST LASERDISC GAMES:
LASER GRAND PRIX
DRAGON'S LAIR
BEGA'S BATTLE
M.A.C.H.3
SPACE ACE

CREATING A HOME GAME: ROB FULOP TELLS HIS STORY

YOUR RIGHTS AS A GAME DESIGNER

INTERACTIVE HOME DISC REPORT

DON BLUTH'S SPACE ACE

0 48964 12
208295

THE VIDEO GAME YOU PLAY WITH YOUR EYES AND EARS.

MOUNTAIN KING™

LET THE MUSIC BE YOUR GUIDE OR PREPARE YOURSELF TO DIE!

MOUNTAIN KING.™ IT'S MUSICAL MADNESS, WITH YOU AGAINST THE BEASTLY BATS AND BUGS WHO ALL DANCE TO THE DEADLY BEAT.

CAN YOU OUTPLAY THE MUSIC AND BECOME KING? FIND OUT, IT'S THE ULTIMATE UNDERGROUND EXPERIENCE!

© 1983 CBS Inc.

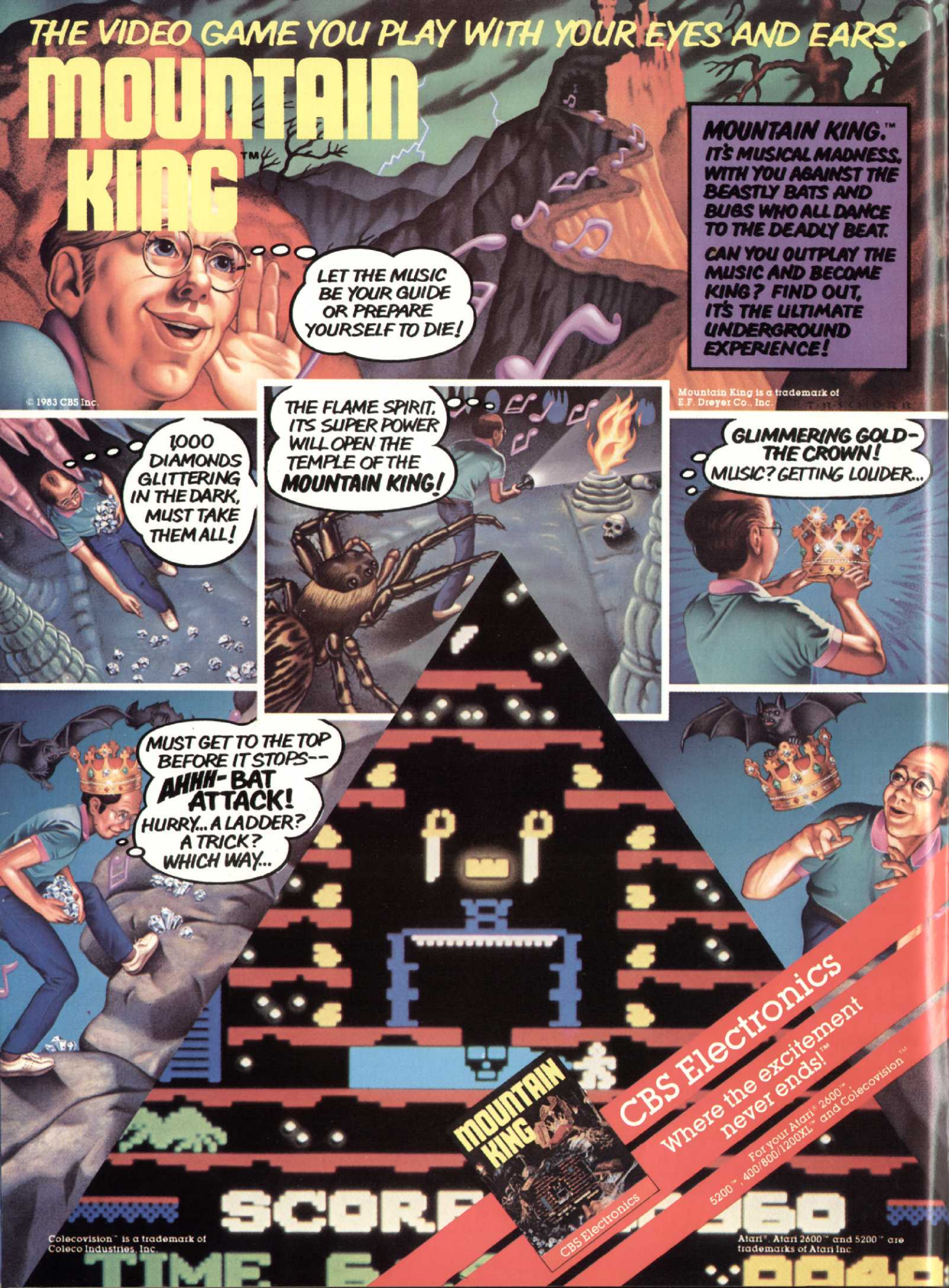
Mountain King is a trademark of E.F. Dreyer Co., Inc.

1,000 DIAMONDS GLITTERING IN THE DARK, MUST TAKE THEM ALL!

THE FLAME SPIRIT. ITS SUPER POWER WILL OPEN THE TEMPLE OF THE **MOUNTAIN KING!**

GLIMMERING GOLD— THE CROWN! MUSIC? GETTING LOUDER...

MUST GET TO THE TOP BEFORE IT STOPS— **AHHH- BAT ATTACK!** HURRY... A LADDER? A TRICK? WHICH WAY...



CBS Electronics

Where the excitement never ends!™

For your Atari® 2600™, 5200™, 400/800/1200XL™ and Colecovision™

Colecovision™ is a trademark of Coleco Industries, Inc.

Atari®, Atari 2600™ and 5200™ are trademarks of Atari Inc.

VIDEO GAMES

page 20

page 32

page 31

page 48

Volume 2, Number 3 December 1983

FEATURES

THE RITES OF PASSAGE 20
An open letter to all game designers.

ALTERNATIVE FORMATS 23
Plugging into interactive telecommunications and games.

MIKE USLAN 28
The evolution of videodiscs.

SPECIAL SECTION:

THE LASERDISC AGE BEGINS 32
The latest arcade game introductions: Dragon's Lair; Space Ace; Laser Grand Prix; Bega's Battle and M.A.C.H. 3.

SENSORY FEEDBACK 48
Computer intelligence? Fact or fiction.

AN ACT OF CREATION 52
Rob Fulop takes you behind the scenes of home game design.

DEPARTMENTS

HYPERSPACE 4
Insights into the issue at hand.

DOUBLE SPEAK 6
VIDEO GAMES' readers speak out.

BLIPS 10
Artists byte the computer bug; A videogaming digest; cartoon capers; lone star sensation and lots more.

COIN-OP SHOP 56
New game themes and developing trends; Cluster Bluster; Juno First; Pro Bowling and Elevator Action.

SOFT SPOT 64
Galaxian; Q*bert; Moonsweeper; Pooyan and more.

COMPUTER CORNER 72
Games for the Commodore 64 and more.

HARD SELL 78
Coleco's Gemini: Dual purpose game system.

STATS 82

Cover Illustration Courtesy of Don Bluth Animation.

VIDEO GAMES

Publisher
Cheh N. Low

Editor
Roger C. Sharpe

Managing Editor
Patricia Canole

Associate Editor
Perry Greenberg

Contributing Editors
Mark Andrews
Mark Brownstein
Dawn Gordon
John Holmstrom
Dan Persons

Editorial Assistants
Michael Fine
Melinda Glass

Art Director
Philip Wolf

Advertising Director
Jason Boda

Circulation Director
Al Wrobel

Assistant to the Publisher
Jan Mittelmark

Contributors
Mary Claire Blakeman, Steven Epstein, Rob Fulop, Richard Goodwin, Jim Gorzelany, Andy Levine, Suzan D. Prince, Perry Realo, Mike Sittnick, Rawson Stovall, Zelmo

VIDEO GAMES is published monthly by PUMPKIN PRESS Inc., 350 Fifth Avenue, Suite 6204, New York, N.Y. 10118. Under Universal International and Pan American Copyright Conventions. Reproductions of editorial or pictorial content in any manner is prohibited. No responsibility will be accepted for unsolicited material. All such material must be accompanied by sufficient first class postage. Single copy price $2.95. Subscription rate $30.00 for one year (12 issues), Canada and Foreign are $45.00. Application to mail at second class postage rate is pending at New York, N.Y. and additional mailing offices. Postmaster: send address changes to Video Games Magazine, 350 Fifth Ave., Suite 6204, New York, N.Y. 10118.

HYPERSPACE

After floundering around for longer than anyone expected, arcade games are back at the top of the list due to the success of Dragon's Lair. Unveiled at the spring AOE convention, the game subsequently reached players in mid-summer and the rest is history. The news media discovered the animated laserdisc game and suddenly video was a 'hot' subject once again.

In our continuing pledge to keep you ahead of the game, *Video Games* has pulled together some advance previews of the next generation of laserdisc arcade games which follow on the heels of Astron Belt, originally introduced last year by Sega. This game, which led off the laserdisc explosion last year is scheduled to be modified and reworked by Bally who recently purchased the west coast manufacturer. In addition, as this month's cover highlights, the successor to Dragon's Lair, Space Ace, which isn't due to make an appearance until after the beginning of the year, is getting some final touches at Don Bluth Productions.

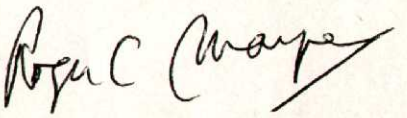
The reason for all the action is the annual fall extravaganza, being held this year in New Orleans at the end of October. It is here that coin-op manufacturers will have the opportunity to showcase new product and new technological applications. And this time around all energies and attention are being focused on getting laserdisc games ready. Each of the major companies is committed to proving that they too have the capability of creating some type of disc game.

This issue, we've rounded up a sampling of games which will be leading the parade of many, many other models. Beginning on page 32, you'll read about Space Ace, Bega's Battle from Data East USA, Taito's Laser Grand Prix and Mylstar's M.A.C.H. 3. Each of these machines offer their own unique nuances and design directions, combining live-action footage with more conventional video screen images, as well as a glimpse of what we can expect in the future.

Regarding game design, *VG* is following up on a feature from last issue when we took you behind the scenes of the making of Atari's Star Wars. This time around, we changed our focus to the home market and on page 52 you'll read how Rob Fulop designed his latest effort for Imagic, Fathom, and get an idea of what it takes to create a home game.

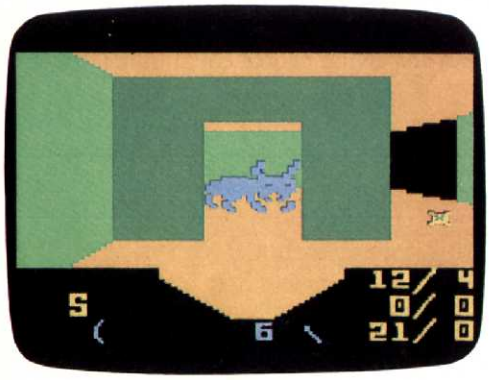
In addition, we're pleased to bring you an open letter (page 20) which details what you should expect if you're fortunate enough to get a contract from a home or arcade game manufacturer. In many ways, after reading this feature, you'll have a better sense of what your rights are if you do get the opportunity to sign on the dotted line.

And there's still more in this issue of *Video Games* including the latest arcade game reviews, home cart attractions and computer software releases. You'll also find out about Coleco's new Gemini game system and how video is expanding away from the more conventional formats we've been used to (page 23). So get ready as *VG* covers the world of video games like no one else can.



THIS NEW INTELLIVISION® VIDEO GAME HAS 4539 TUNNELS, 256 DUNGEONS, 1 HIDDEN TREASURE AND NO ROOM FOR ERROR.

TREASURE OF TARMIN™* cartridge is the newest video game challenge in the ADVANCED DUNGEONS & DRAGONS™* series for Intellivision. But beware. It is no game for mere mortals.



You must be more than clever. You must master the skills of mystic weaponry and sorcery. Or suffer destruction by over fifty different types of hideous creatures. And once you begin your quest for the treasure, there's no turning back.

So if you dare take on this video game, remember, you've been warned. These dungeons are going to give you the creeps. Getting rid of them is your problem.

MATTEL ELECTRONICS®

Advanced Dungeons & Dragons™

TREASURE OF TARMIN™

NEW FOR INTELLIVISION®

*ADVANCED DUNGEONS & DRAGONS and TREASURE OF TARMIN are trademarks owned by and used under license from TSR, Inc. This cartridge is approved by TSR, Inc., the publisher of the "Fantasy Role-Playing Games" sold under the trademark ADVANCED DUNGEONS & DRAGONS®

©1982 TSR, Inc. All Rights Reserved. © Mattel Electronics, Inc. 1983. All Rights Reserved.

Double Speak

More Than Meets The Eye

I would like to comment on a particular game review in your October '83 Soft Spot—namely Solar Fox. Most of the review is fine except for the last two paragraphs in which Dan Persons, your reviewer, states that after six racks the game goes back to the first, with no increase in difficulty. True, on Game #3 which is called the Parents Game (easy) in the instructions. But try Game #1, and you have a whole new game. The first six racks are the same (as the easy game) but racks 7 through 20 are completely different. Also, starting with rack 7 the "little squares" (solar cells) have to be passed over twice in order for them to disappear. After 20 racks they begin to repeat but if you get that far (my son has) you've forgotten what the first ones have looked like anyway. Also, no mention is made of the challenge racks which come after every five normal racks. This is strictly a timed affair with no penalty for not completing it. If you complete it in the alloted time a tiny letter appears on the screen. Get all six letters (30 racks/5 challenges) and you spell the secret message of Solar Fox. I don't know if the enjoyment will wear off after getting all six but right now it is about the only one of some 40 games we play on the 2600. This letter is not meant to criticize your magazine or reviewer, but is to show people that there is a lot more to the game than you originally presented. Try it, you'll see!

Michael McCormick
Pawtucket, Rhode Island

Dan Persons Replies:
Oops! When we had gotten Solar Fox, CBS had neglected to send us its instruction manual. Since my reflexes are not quick enough to survive all 20 racks in Game #1 (kudos to your son), I played Game #3 in an attempt to discover all the rack configurations that were available. As Mr. McCormick has devined, it was on this "Parent's Game" that I found Solar Fox repeating without an increase in difficulty. It was my mistake to assume that the situation applied to all games on the cart. With my apologies, let me revise my evaluation. As I had stated in my review, Solar Fox is an unusual, fast-paced, hypergalactic gobble game. Fans of the arcade game, or those who are intrigued by the concept, need not fear that the game will wear out its welcome too soon. There are apparently skill levels enough for everyone.

The Great Debate Continues

I'm writing in response to three letters published in your October '83 issue from Robert Strong, Bob Ritter and Richard Squibb. These three letters were in reply to my original letter in the August '83 issue. It's a nice try boys, but the truth is one thing and mistakes like buying a ColecoVision is another. Following are facts that make the 5200 *the one and only supersystem*. 1) The 5200 has 320 lines of graphic resolution; 25% sharper than Coleco. 2) The 5200 has 256 colors compared with Coleco's measly 16. 3) The 5200 has Star Raiders, a game produced for the 400 computer and holds the #1 rating for 3 years. 4) Atari has licensed rights from such excellent arcade companies as Williams, Bally/Midway and Taito, in addition to their own excellent versions of arcade games. Coleco has, on hand, "dry" arcade hits like Space Panic, LadyBug, and others that didn't even make it in the arcades. 5) Whatever happened to the Super Game Wafer for Coleco? It was cancelled. However, nothing has been cancelled for the 5200. 6) The 5200's Pole Position puts ColecoVision's Turbo to shame along with all their games. The battle over the 5200 and ColecoVision has just begun!

Nick Baime
Glendale, Wisconsin

And Continues...

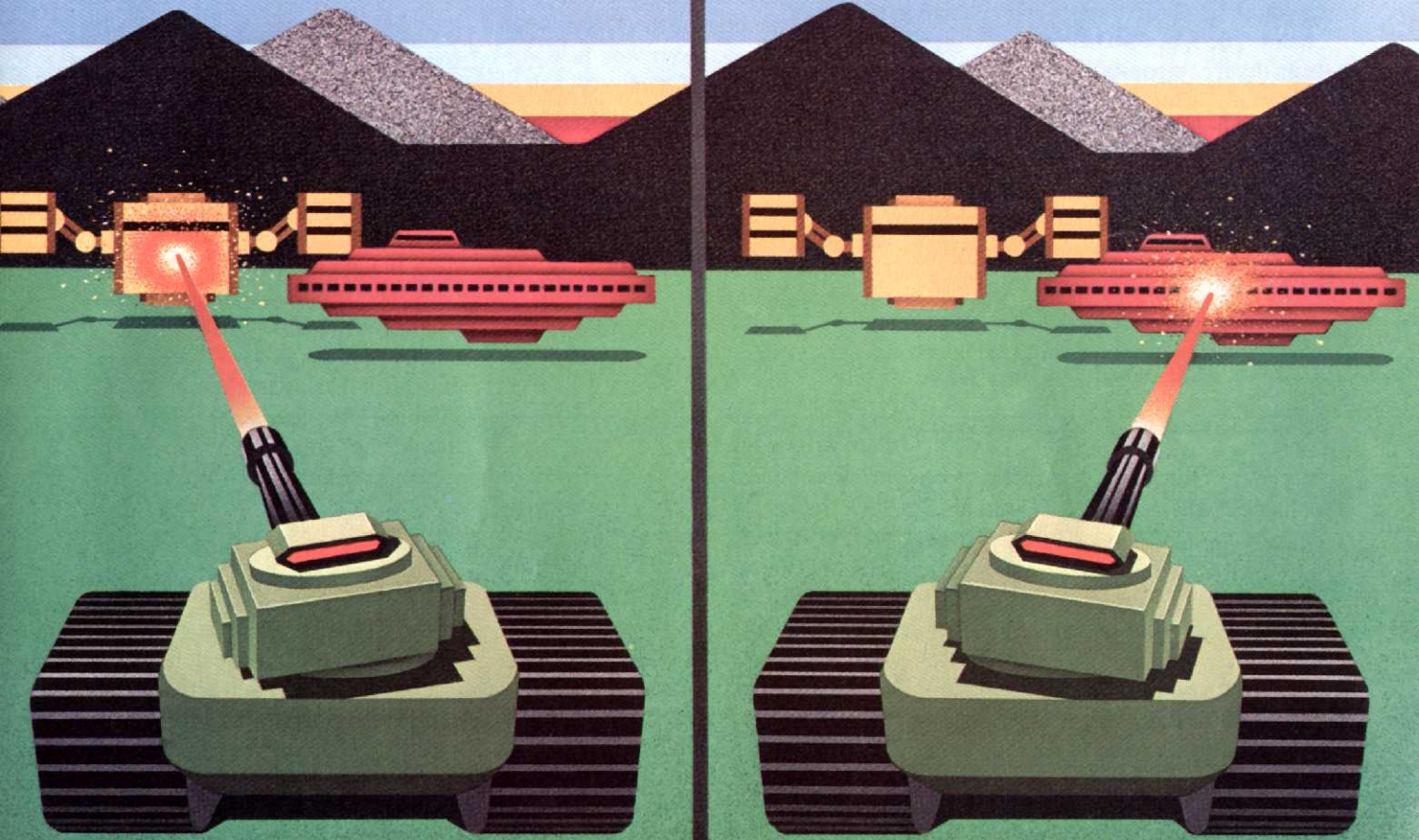
This is in response to the battle between the ColecoVision and the Atari 5200. Each system has its pluses and minuses; so to compare the two is like comparing apples and oranges (sorry about that cliche folks). I personally own a ColecoVision and think it's a terrific system, but I wouldn't mind owning a 5200 for it too is an excellent system. Come on guys! Do you really think your letters proclaiming your system as the best are going to turn us around? ColecoVision owners rejoice! Coming soon will be Dragon's Lair on video disk for your system (5200 owners don't despair, Atari will do likewise). In addition, Mario Bros. is coming home to you 5200 owners, as well as for you 400/800/1200 owners. So thanks for your time and I think your magazine is great not only for its great information, but for giving people equal time in the letters section.

Bill Longsworth
South Hadley, MA

In response to Bob Ritter's (October '83) misleading letter about the 5200, I would like to detail the true unbiased facts. When I was shopping for the right system to buy, either the 5200 or ColecoVision, I looked at the positives and negatives of each system. My choice to buy the Atari 5200 came down to games; Atari has the best games by far. If Mr. Ritter doesn't agree that Mr. and Ms. Pac-Man, Pole Position, Dig Dug,

(continued on page 8)

†Indicates a trademark of Sears, Roebuck and Co. © 1983 Atari Inc. All rights reserved.



Which player is making a tactical error?

You've fought BATTLEZONE™ tanks, flying saucers and fighters in the arcade. Now it's time to protect the home front. Because Atari's BATTLEZONE is now prepared to wage war right in your own living room.

The player on the right will most likely fail in his mission. He should've hit the fighter first. Even though it is worth 3,000 points less than the flying saucer, it is far more dangerous. It can destroy. The saucer can't.

There's another way you can rack up extra points, and you don't even have to fire a shot. By moving your tank to one side, you can often lure one enemy into another's line of fire.

Surviving BATTLEZONE is no easy mission. If you're up for it, climb into your troop transport and make tracks to the nearest store that stocks Atari games.

Only Atari makes BATTLEZONE for the ATARI® 2600™ Game, Sears Video Arcade† systems, and a version exclusively for the ATARI 5200™ SuperSystem.

ATARI®

A Warner Communications Company

Double Speak

(continued from page 6)

Pengo, Joust, along with upcoming games such as Star Wars, Millipede and Mario Bros. aren't better than what ColecoVision has to offer then I suppose he must enjoy playing second class games. The 5200 also has games coming from other companies such as Blueprint, Mountain King, K-Razy Shootout, Congo Bongo and Star Trek to name but a few. By the way, these carts will *not* be for ColecoVision. If Mr. Ritter and his ColecoVision fans knew all the facts about the 5200, then I'm sure they would be trying to find some way to unload their systems.

Andy Phillips
North Plainfield, New Jersey

In your October '83 issue, you published several letters responding to Nick Baimes' letter (August '83) regarding which is a better video system—the Atari 5200 or ColecoVision. I own both systems, I believe the 5200 to be the better of the two. In another letter Mr. Ritter cited that the 5200 VCS emulator cannot be found; well, it is now available. He also stated an absence of an expansion port. In the back of the 5200 there is a pry-out door which exposes such a port. And as far as "hit arcade" games are concerned, let's face it, ColecoVision doesn't even come close to Atari. Sure, Coleco has Zaxxon, Donkey Kong Jr., and Turbo. But look what is—and will be—available for the 5200: Jungle Hunt, Joust, Robotron, Asteroids, Defender to name but a few. And how about the flickering found in many of Coleco's games? One would be hard pressed to find such a thing in the 5200 carts. Take it from a ColecoVision owner, the 5200 out-classes the competition!

Keith J. Moore
Champlin, Minnesota

This in reply to Nick Baime's letter (Aug. '83) in which he puts down ColecoVision because he has an Atari 5200. While I also own an Atari 800 computer, I have a ColecoVision as well and enjoy both. I think Atari has some great games out, but so does ColecoVision. I would like to know where he gets his sales figures for the 5200. The last I have heard on ColecoVision is 1.3 million. Also, why must the 5200 be more popular. Also, ColecoVision can be expanded into a very powerful computer. It is also coming out with games that far exceed anything the 5200 can come up with so far. The fact of the matter is that Mr. Baime is probably sorry he bought the 5200 instead of ColecoVision. the reason he is seeing so much about ColecoVision is because they are coming out with the innovations and Atari is slipping behind right now. I must commend your magazine for the excellent coverage. I have seen fair and equitable coverage of all products no matter who the manufacturer.

Robert D. Strong
San Antonio, TX

I am writing this letter to correct some of the comments that a person named Nick Baime made in your summer issue of *Video Games*. He said that the 5200 was more popular and sold more than ColecoVision. The ColecoVision has sold about 1.5 million units so far with an estimate that 2.5 million will be sold *by* (not during or after) the holiday season. The 5200 is close to selling half as many as 1.5 million. you may be wondering how I know all of this. Well I work at J.C. Penney's in the video games department and regularly meet with the people who represent these companies (Atari, Coleco) as well as others (Activision, Imagic, Mattel). My store wants me to make it my business to ask fact finding questions to these representatives. At our store (which is located in the largest mall in the world, The Del Amo Fashion Square in Torrance, California serving a great number of *customers*) ColecoVision out sells the Atari 5200 five to one. Mr. Baime also stated that the games on the 5200 will make ColecoVision owners drool. Hardly so. Since I met with these representatives I find out about what is coming out way before the general public does. From what I have seen Coleco will have way better games than the 5200 and almost three times as many peripherals. Coleco will also probably be the first to get into 3-D and laser disc games and have already bought the rights to Dragon's Lair.

Glenn Ford
Carson, Calif.

I just got your September issue of *Video Games* and a letter from Jonathan Cox said that the Atari 5200 was the best system. I totally agree. Not only will there be a computer add-on, voice synthesis, recognition module, trakball, and a 2600 adapter available soon, but the games soon to be released are great! There will be Baseball, Tennis, Basketball, Vanguard, Pole Position, E.T., Pengo, Robotron, Jungle Hunt, Joust, Kangaroo, Dig Dug, Tempest, Battlezone, and Moon Patrol. Not to mention Ms. Pac-Man, Millipede, Xevious, Stargate, Gravitar, and Quantum all from Atari, Also Imagic, Big Five, Parker Bros., CBS, and Fox Games all are making games for the 5200. Also, I forgot to mention the deal with Williams to produce all of their arcade games (Sinistar, Bubbles) for the 5200. This letter should be enough to prove what system's the best.

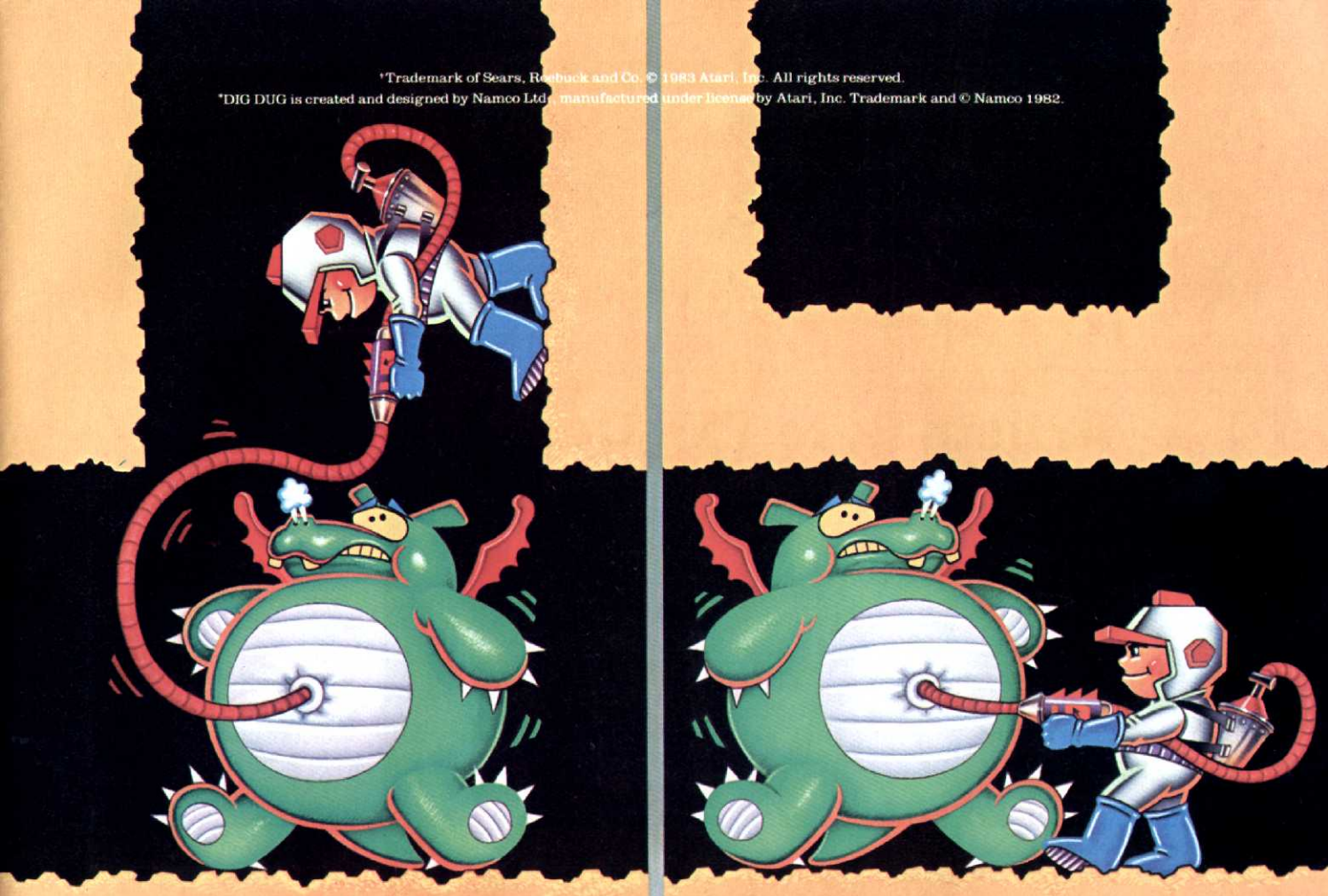
T.J. Bennett
Berkeley Heights, N.J.

In response to letter writer Jeff Silva regarding Atari trying to dominate the market, it is obvious Jeff that you don't know what the heck you are talking about. First, by the end of the year you will regret selling your Atari 2600 for a ColecoVision. You should have gotten an Atari 5200. If you want to talk about domination, let's talk about Coleco. Coleco comes out with an Atari 2600 adapter, then they come out with this Gemini System which is just like selling a VCS with a different brand name. They have been reported using Atari type parts. Don't tell me about domination. As far as Atari making cartridges for ColecoVision, the Editor said they will be. Now why don't you tell me Jeff, why Coleco isn't making games for the 5200. Think about it.

Ron Galon
Lemon Grove, CA

Address your letters to Doublespeak care of VIDEO GAMES, 350 5th Ave., Suite 6204, New York, N.Y. 10118. Letters that require a personal reply must be accompanied by a self-addressed, stamped envelope.

†Trademark of Sears, Roebuck and Co. © 1983 Atari, Inc. All rights reserved.
*DIG DUG is created and designed by Namco Ltd., manufactured under license by Atari, Inc. Trademark and © Namco 1982.



Which is the best way to inflate your score?

Better find out. We've done our ground-work on DIG DUG so well, it plays just like it does in the arcade. So don't dig yourself a hole. Like the player on the left. Sure he'll score points for blowing up the Fygar™ in a vertical path. But blow up the Fygar in a horizontal path, like the player on the right, and score twice as many points. A landslide.

You can dig up even more points by uncovering a bonus veggie. But you get only one on each level. All you have to do is drop two boulders and you'll see it. Buried treasure disguised as a veggie.

Only Atari makes DIG DUG for the ATARI® 2600™ Game, Sears Video Arcade† systems, and versions exclusively for the ATARI 5200™ Super-System and all ATARI Home Computers.

So get to your nearest store and dig into your pockets. For DIG DUG.

Here comes Dig Dug™ from Atari.®

A Warner Communications Company

BLIPS

Artists Byte The Computer Bug

If you're artistically inclined, you may soon join those creative people who express their talents with tools like keyboard and printer instead of pen and paper. At the SIGGRAPH '83 exhibition of computer art this past July, you would have seen that the computer-generated art movement is thriving, as almost 100 such works were on display in Detroit's Cobo Hall.

While most of the pieces were plotter/printer drawings and photographs, including colorful designs and surrealistic scenes, there were also less expected applications of computers to other art forms, such as sculptures, paintings, textiles, prints, collages and even film and video. There were also intriguing 3-dimensional holograms on display. Pieces were selected by a panel of computer artists on their artistic merit, not merely because of slick use of computer techniques that most people versed in the technology could execute.

The exhibition was part of SIGGRAPH '83, the Tenth Annual Conference on Computer Graphics and Interactive Techniques, which also included courses, technical paper presentations, panel sessions, equipment exhibitions, manufacturers' exhibits and user group meetings, all related to computer graphics in some way. The 11,000 members of SIGGRAPH all share an interest in the subject.

So if all this sounds good to you, you might want to be in Minneapolis, Minnesota for SIGGRAPH '84 (July 23-27). For more information, contact: SIGGRAPH '84 Conference Office, 111 East Wacker Drive, Chicago, IL 60601, (312) 644-6610.

—Michael Fine

Club Feats

Computer clubs are notorious for starting out with heady enthusiasm, only to drown in a sea of frustration and confusion. Now Apple Computer, Inc. is offering kits that will help organize computer clubs at school. Each kit includes a manual, which will guide the students and their adult sponsor on how to set up the computer club.

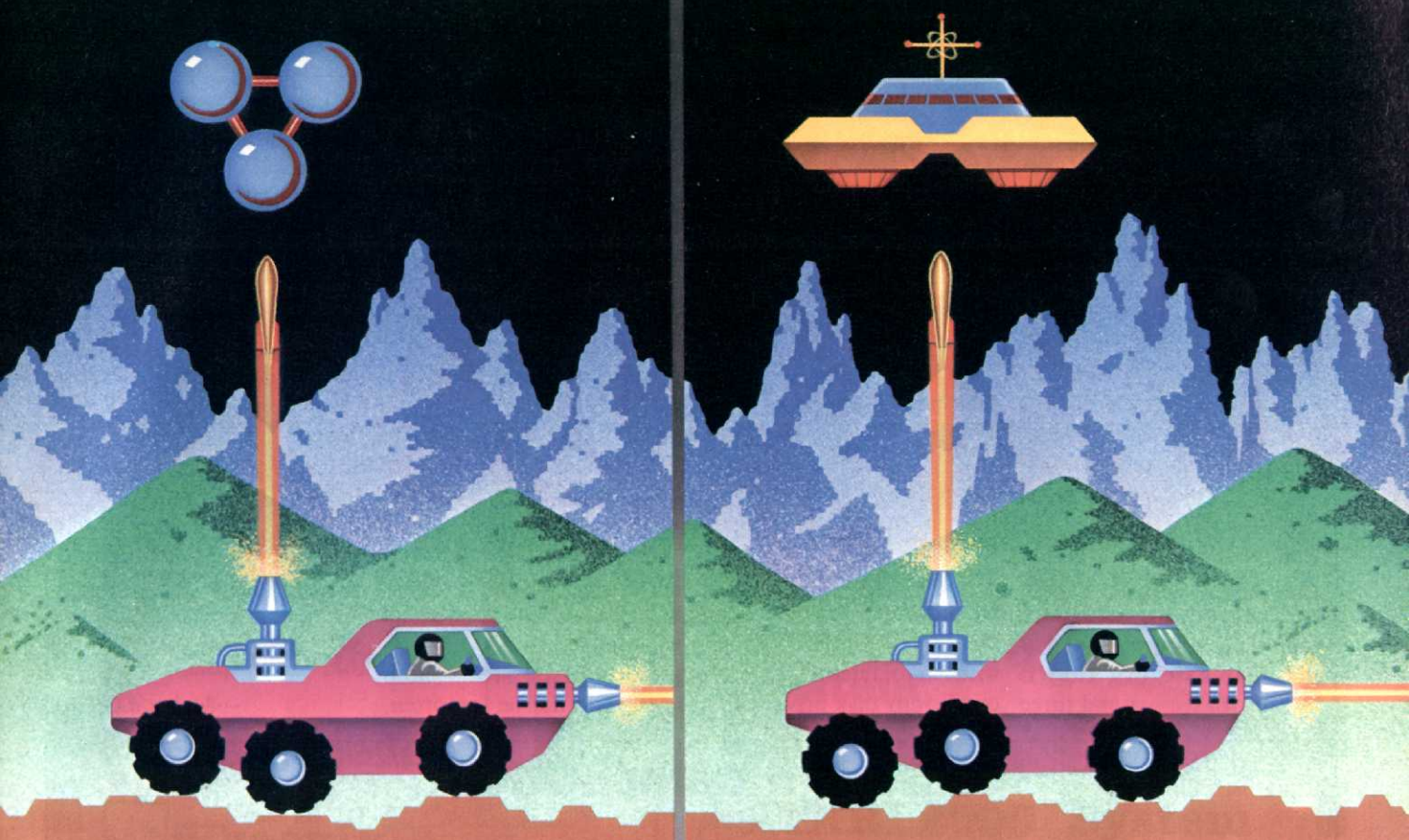
The organizational guidelines and suggestions for club activities outlined in the manual are based on experiences from existing computer clubs that have large active memberships. Brochures designed for students which describe what computer clubs do, how to use a computer and where they can learn more about computers are also part of this kit. The kit has the unique design of being able to be used at a school that either has or does not have computer equipment available.

The requests for computer club kits should be written on school stationary, include the name of an adult sponsor and be signed by the school principal. The adult sponsor can be a teacher, administrator or a parent—any adult who is willing to advise at least 12 students. Request should be sent in as soon as possible because there are only 10,000 kits which are being made available.

Apple is also sponsoring a national student competition in which both computer clubs and individual students from elementary and secondary school can compete for many prizes. These prizes range from computer equipment, to traveling to cash awards. Now students and computer clubs are given a chance to be recognized for their achievements in computer fields.

Clubs and students who enter the competition are encouraged to hand in projects where they have used microcomputers for a community service project. If you have a project in another area of computers, don't panic! Any activity that requires the use of microcomputers will be considered for an award. The competition will be

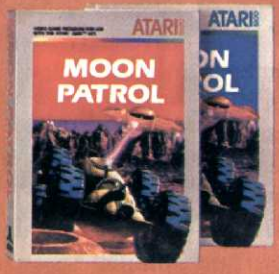
*Trademark and © Williams 1982, manufactured under license from Williams Electronics, Inc.
†Indicates a trademark of Sears, Roebuck and Co. © 1983 Atari, Inc. All Rights Reserved.



Which player is really firing up his score?

Think quick. The new home version of Moon Patrol looks so much like the arcade, it could fool the man in the moon. So don't find yourself in a crater. Like the player on the right. He'll get only 100 points for using his Moon Buggy to shoot down a Moon Strafer. While the player on the left will get twice as many points for shooting down a Crater Maker. A victory as great as the lunar landing.

Your score can wax even higher. You'll get 80 points every time your Moon Buggy jumps over a rock. But you'll get 100 points when you blow up a rock.



Only Atari makes Moon Patrol for the ATARI® 2600™ Game, Sears Video Arcade† systems, and a version exclusively for the ATARI 5200™ SuperSystem.

So get on your lunar module and scan your local moonscape for Moon Patrol.

Here comes Moon Patrol® from Atari®.

A Warner Communications Company

judged by independent judges who have been selected for their notability in both computer and education fields.

The good part about this competition is that there will be more than one winner. First the entries are classified into elementary and secondary school divisions. Then these two divisions are further subdivided into club entries and individual student entries. In the club category one winner and one runner up will be picked from the elementary school division, then one winner and one runner up from the secondary school division. In the individual category they'll award one winner and three runners up for the elementary division, and one winner with three runners up for the secondary school division. Twenty-five semifinalist clubs will be named from each of the two club categories. From each of these two categories, two finalist clubs will be chosen. The winner from each of the two finalist club groups will then be announced in May, 1984 in Washington, D.C. For each winning club, the grand prize of *Ten* Apple IIe "Starter System" packages will be awarded.

Included in each of these 10 "Starter Systems" is an Apple IIe personal computer with 64K of internal memory, one floppy disk drive with a controller card. The whole package is worth approximately $20,000 and the prize for runner up is equally impressive. It consists of five Apple IIe "Starter Systems", which is worth approximately $10,000.

In the individual category there will be four finalists along with 25 semifinalists from each of the two categories. From the finalists there will be one winner and three runners up chosen from both categories. The winners will be announced in Washington, D.C. $1,000 is first prize each lucky winner will receive. The runners up will each receive $500. The 25 semifinalists from each group will not be forgotten, with each receiving $100.

The deadline for entries in this national competition is March 1, 1984. The semifinalist announcement will be on April 4, 1984, and the finalists on April 18. The week of May 16 will be the Washington trip with the announcement of the winners. A word of caution: Be sure to get the rules and guidelines from Apple Computer Clubs before sending an entry in. Information on both the computer club kits and the computer competition can be obtained by either calling (617) 452-9979 or writing: Apple Computer Clubs, Box 948, Lowell, MA 01853.

—Melinda Glass

Design Competition

Everyday, the keyboard operators of home computers are getting younger and younger. One main reason for this, is that parents believe that by allowing their pre-schoolers to learn to operate these machines, they will have an advantage in later life by being prepared for the technology they will encounter both in and out of school.

The young computer buffs have become experts in deciding which computer programs interest them and which do not. Now who would know better what interests children, than children? Kraft, a major food manufacturer, has decided to stir up some excitment among the 17 and under microkids by sponsoring *The Kraft Kideo Game Contest.* Nutrition is the theme of this contest—primarily the importance of eating a balanced diet. Of course, it is not limited to a balanced diet, other healthy habits like getting enough sleep, exercising properly or brushing teeth can be mentioned.

A 200 word concept and a simple screen drawing are the requirements for this contest. The concept will be translated into a microcomputer nutrition game for those in the 3-to-8-year old level.

The Grand Prize of this contest is a 4-day/3-night trip to Walt Disney/EPCOT Center World for the winner and family (up to 4 people). Included is a round-trip coach air fare, hotel, and Walt Disney World/EPCOT passes. Also, $500 in cash to cover additional expenses. (estimated value—$4,000!)

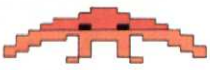
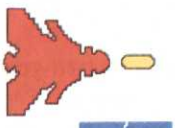
Also, the Grand Prize winner will have the opportunity to travel to New York City on a promotional media tour, accompanied by one parent (or guardian) and a Kraft representative. The Second Prize is a $1,000 gift certificate good towards computer equipment. Twenty Runner up prizes will be awarded of $50 gift certificates for computer equipment.

Entries for the contest must be received between January 1, 1984 and March 31, 1984. The winners will be announced by May 1, 1984. To receive the Official Rules and Regulations for the contest, send a self-addressed, stamped #10 envelope to The Kraft Kideo Game Contest, P.O. Box 845, South Holland, IL 60473.

—Melinda Glass

How to make sure you don't get 5 pairs of underwear for Christmas.

Fill in this checklist, tear it out and give it to your parents. Help them figure out that this Christmas you'd like software and hardware. Not underwear.

- ☐ **Ms. Pac-Man**[1]
- ☐ **Centipede**™
- ☐ **Phoenix**[2] 
- ☐ **Vanguard**[2] 
- ☐ **Jungle Hunt**[3]
- ☐ **Kangaroo**™, [4]
- ☐ **Dig Dug**[5]
- ☐ **Galaxian**[6]
- ☐ **Pole Position**[7]
- ☐ **Battlezone**™
- ☐ **Moon Patrol**[8]

- ☐ **ATARI 5200™ Super-System**
  The world's most advanced video game system. Now with a $30.00 rebate offer.*

- ☐ **ATARI 2600™ System**
  The world's most popular video game system. Now with a $30.00 rebate and a $60.00 rebate coupon book.*

- ☐ **ATARI 5200 TRAK-BALL™ Controller**
  For the real arcade touch. Plays more TRAK-BALL™ compatible games than anyone else.

- ☐ **ATARI VCS™ Cartridge Adapter**
  Lets your 5200 play every game made for ATARI game systems.

- ☐ **ATARI TRAK-BALL™ Controller**
  For real arcade action on the ATARI 2600™ System, Sears Video Arcade† System and all ATARI Home Computers.

ATARI®

A Warner Communications Company

1. MS. PAC-MAN and characters are trademarks of Bally Midway Mfg. Co. sublicensed to ATARI, Inc. by Namco-America, Inc. 2. PHOENIX and VANGUARD are trademarks licensed by Centuri, Inc. 3. JUNGLE HUNT is a trademark and © of Taito America Corp. 1982. 4. KANGAROO is produced under license from Sun Electronics Corp. 5. DIG DUG is created and designed by Namco Ltd. under license by ATARI, Inc. Trademark and © Namco 1982. 6. GALAXIAN is a trademark of Bally Midway Mfg. Co. licensed by Namco-America, Inc. 7. POLE POSITION is engineered and designed by Namco Ltd. Manufactured under license by ATARI, Inc. Trademark and © Namco 1982. 8. MOON PATROL is a trademark and © Williams 1982, manufactured under license from Williams Electronics, Inc. *Limited offer expires 12/31/83. See participating retailers for details. † Indicates a trademark of Sears, Roebuck and Co. © 1983 Atari, Inc. All rights reserved.

Video Gaming Digest

At last, a magazine dedicated to recognizing the very best electronic and board game players. From Asteroids to ZZY, ZZY, XX, top players for every imaginable game, both arcade and home computer, are listed. Only the top player is listed because of magazine space limitations and vast amounts of games being played. However, to find out if a score is among the top 25 and qualifies for a world record, the editor of *World Game Records*, Ed Harris, can be contacted at the address below. If it qualifies as a world record, instructions on how to verify it will be given.

The top scores of arcade and home games is not all that's packed into this nifty little magazine. Also included are game reviews, information on computer/video game clubs (along with their requirements), the top 100 active USA chess players and Pente finalists. For those who want the details of top scores, *World Game Records* is "the Authoritative Source for Who, & What Won Where, When and What." This magazine is published four times a year for $7.50. For more information on subscribing and high scores* write *World Game Records*, Box 338, Dayton, OH 45449.

—Melinda Glass

**Include a self-addressed stamped envelope.*

Sticky Business

If there weren't enough already, another company has entered the replacement joystick sweepstakes. Coin Controls Inc. of Elk Grove, Illinois is distributing a new product line which includes the Competition-Pro 1000, Competition-Pro 3000, and the Competition-Pro 5000. The latter is nylon and steel with a sturdy plastic handle that features a 1¼" round control knob and tapered shape. There's eight-way directional action and real leaf switches, as well as two large arcade-style buttons on either side of the stick for right or left handed players. An optional six-foot extension cord can be attached to the Competition-Pro 5000's five-foot cord, and besides freeing you from close proximity to your system, allow you to use the stick with a variety of systems including Atari's 2600/400/800/1200, Commodore 64 and VIC-20, and the Sears Arcade Game. In addition, with the extension cord the ColecoVision Home computer system, NEC home computers, Panasonic home computers, Vectrex video game system and any other computer/video system which utilizes the D-9 conductor cord can use the Competition-Pro 5000. Last, but not least, the 5000 features a two-year unconditional warranty, which ensures you of getting repairs or replacements if anything goes wrong.

—Melinda Glass

Lone Star Sensation

Do any of you TI 99/4A owners out there feel lucky? Then try your hand at the Computerized Giveaway-Texas Style, a drawing where winners get TI 99/4A-compatible peripherals, software or other accessories. The contest, sponsored by three Midwestern and one Eastern computer retailers, offers a Paraprint 18A Parallel Printer Interface, 32K Memory Expansion, and Parallel Printer Interface Cable as a grand prize; two second prizes of a complete software set, including games like Frazzle and programs such as Check Book Balancer and Quizmaster; and other prizes, including the Peripheral Expansion Box and more software. All in all, twenty-eight entrants will win something.

To enter, put your name, address, and phone number on a 3½" x 5½" postcard and send it to this address by December 10, 1983: Computerized Giveaway-Texas Style, C/O TEXware Associates, 350 First North Street, Wellington, IL 60973. Winners will be notified by phone or mail by January 10, 1984.

The sponsoring retailers are Doryt Systems, Inc., of Glen Cove, N.Y.; Dhein's True Value, of Waterloo, Iowa; TEXware Associates, of Wellington, Ill.; and Computer Connection I, of Cleveland, Ohio.

—Michael Fine

POWER LORDS

In comic books. In action figures. Now the video game.

Out there, in the deepest reaches of space, looms a craggy chunk of age-old granite...the mighty Volcan Rock, now held by some of the most deadly aliens. It is up to you to activate all the anti-alien weapons and devices.

Your task is to help Adam Power, Leader of the Lords, fight the laser-eyed Space Serpent that guards the entrance to Volcan Rock. But be careful, there's more danger lurking. Once inside, you must fight the fiery attacks of the evil Arkus. And even more scary, the attacks of the deadly accurate aliens.

Just how good are you at defending the universe? Play POWER LORDS and find out. It's the intergalactic strategy, multi-board video game adventure from Probe 2000 that's challenging even the masters.

Certainly you're one of them...

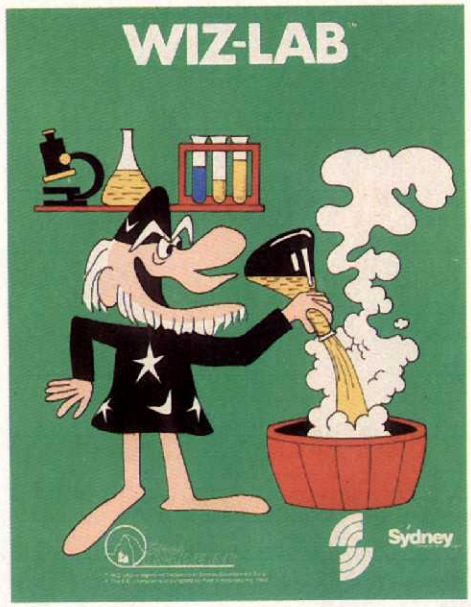
PROBE 2000
series

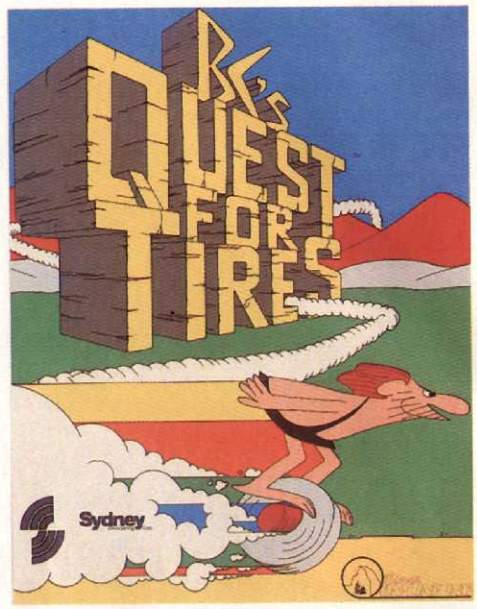
© 1983 N.A.P. CONSUMER ELECTRONICS CORP.
ODYSSEY
A NORTH AMERICAN PHILIPS COMPANY

POWER LORDS IS A TRADEMARK OF & © 1983 STRONGIN-MAYEM INTERNATIONAL
COLECOVISION IS A TRADEMARK OF COLECO INDUSTRIES, INC.

Cartoon Capers

Comic strip characters continue to make a play for computer games with the legendary B.C. and Wizard of Id leading the way with a new batch of titles from Sierra On-Line and Sydney development. These characters will be coming to life in a series of educational and entertaining programs. In the next eighteen months, at least eight programs will emerge for all major home computers, including ColecoVision. QUEST FOR TIRES, WIZTYPE, WIZWORD, WIZLAB, WIZMATH, WIZSPELL, DOT TO DOT ZOT, and BUNG JUGGLER which will be the first programs to be released with QUEST FOR TIRES and WIZTYPE out in time for Christmas.





QUEST FOR TIRES is an entertainment program in which Thor, the first man, zips through the world of B.C. on his prehistoric unicycle. He encounters many adventures in an attempt to save his girlfriend, Cute Chick from the terrifying pterodactyl. After making it through 30 screens this feat will be accomplished.

WIZTYPE will be the first educational program. This individualized, self-paced typing program makes it fun to learn how to type. In this game The Wizard of Id and the spirit compete with each other. The Spirit tries to overwhelm the Wizard with words to be typed. Words appear on the screen to prevent the Spirit from transforming into a dragon, they must be typed correctly. If there are eight words to be typed on the screen the Spirit fries the Wizard. On the other hand, if no words are left on the screen, the Wizard jumps up and zaps the Spirit.

Sierra On-Line plans to be the first independent U.S. developer to ship software for ColecoVision with these new programs. Hopefully, WIZTYPE will be the first independent product available for Coleco's new ADAM computer.

Sydney Development was chosen to design these new programs because of the superior software designers on their staff. They will be able to capture the engaging identities of Johnny Hart's B.C. and Wizard of Id., which are enjoyed by over 100 million people each day in comic strips.

"Sierra On-Line is extremely excited to be working with the Sydney creative team to develop genuinely unique and original educational software for the home and classroom," commented Ken Williams, president and chief executive officer of Sierra On-Line. "Our investment in this acquisition affirms our commitment to education, and it represents not just an isolated game or two but a continuing series of quality learning products. We feel that with the B.C. and Wizard of Id games we are producing fresh and novel educational software with characters that are extremely appealing because they are so accurately represented."

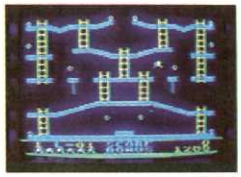
—Melinda Glass

What's In Store: Part II

In the September '83 issue of *Video Games*, we reported on The Electronics Boutique ("What's In Store" page 11). Requests for more information on this chain of stores (which also go under the name of Games 'N' Gadgets) has been pouring in to *VG*'s offices. So we thought you might like to know an address and phone number: Boutique, 901 S. Trooper Road, Norristown, PA 19403, (215) 666-9292. Happy Shopping!

—Melinda Glass

JUMPMAN'S A GREAT GAME. BUT YOU'VE GOT TO WATCH YOUR STEP.



Meet the Alienators. A fiendish bunch who've planted bombs throughout your Jupiter Command Headquarters.

Your job? Use your lightning speed to scale ladders, scurry across girders, climb ropes and race through 30 levels to defuse the bombs before they go off.

That's the kind of hot, non-stop action we've packed into the award-winning,* best-selling Jumpman,™ and into Jumpman Jr.,™ our new cartridge version with 12 all-new, different and exciting screens.

Both games force you to make tough choices. Should you avoid that Alienator, climb to the top and try to work your way down, or try to hurdle him and defuse the bombs closest to you before they go off?

If you move fast you'll earn extra lives. But if you're not careful, it's a long way down.

So jump to it. And find out why Jumpman and Jumpman Jr. are on a level all their own.

One to four players; 8 speeds; joystick control. Jumpman has 30 screens. Jumpman Jr. has 12 screens.

EPYX
COMPUTER SOFTWARE

STRATEGY GAMES FOR THE ACTION-GAME PLAYER.

*1983 C.E.S. award winner.

WE WANT YOU!

To put your joystick down long enough to fill out this questionnaire. Tell us what you like and don't like in the arcades, at home and about this magazine. Then let her rip (or photocopy it) and send it to us pronto at this address: *VIDEO GAMES* Magazine, 350 Fifth Ave., Suite 6204, New York, New York 10118.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Sex: Male: _____ Female: _____ Age: _____

Family Income: Under $14,000 _____ $14-21,000 _____ $21-39,999 _____ Over $40,000 _____

Education: Elementary School _____ High School _____ College _____ Master's _____ PhD _____

Occupation (if none, list parents'): _____

Favorite Department in this issue: _____

Favorite Feature article: _____ Favorite Blip: _____

What I'd like to see less of: _____

What I'd like to read more about: _____

How does this issue of *VIDEO GAMES* compare to previous ones?

The same _____ Even better _____ Best so far _____ Never mind _____

Why? _____

Other than *VIDEO GAMES* which magazines do you read? _____

Hobbies: _____

GAMER SECTION

How much money do you spend on video games per week? _____

Favorite new game: arcade _____ home _____

Biggest disappointment: arcade _____ home _____

Most challenging game: arcade _____ home _____

All-time favorite game: arcade _____ home _____

Favorite sequel game: _____

What home system do you own? _____

How long have you owned it? _____

How many hours per week do you play? _____

If you would get another system, which would it be? _____

How many video games do you buy each month? _____

How many video games do you own? _____

Do home and arcade game ads in *VIDEO GAMES* influence your purchases and selections? _____

What influences you in buying a video game? _____

Magazine or newspaper ads _____ Radio _____ Television _____ Word of Mouth _____ Other: _____

Does reading an article in *VIDEO GAMES* influence your video game purchases? _____

How did you get this issue? subscription _____ newsstand _____

You've just been hired by Big Name Games Company as senior games designer. Describe your first project: _____

_____

_____

_____

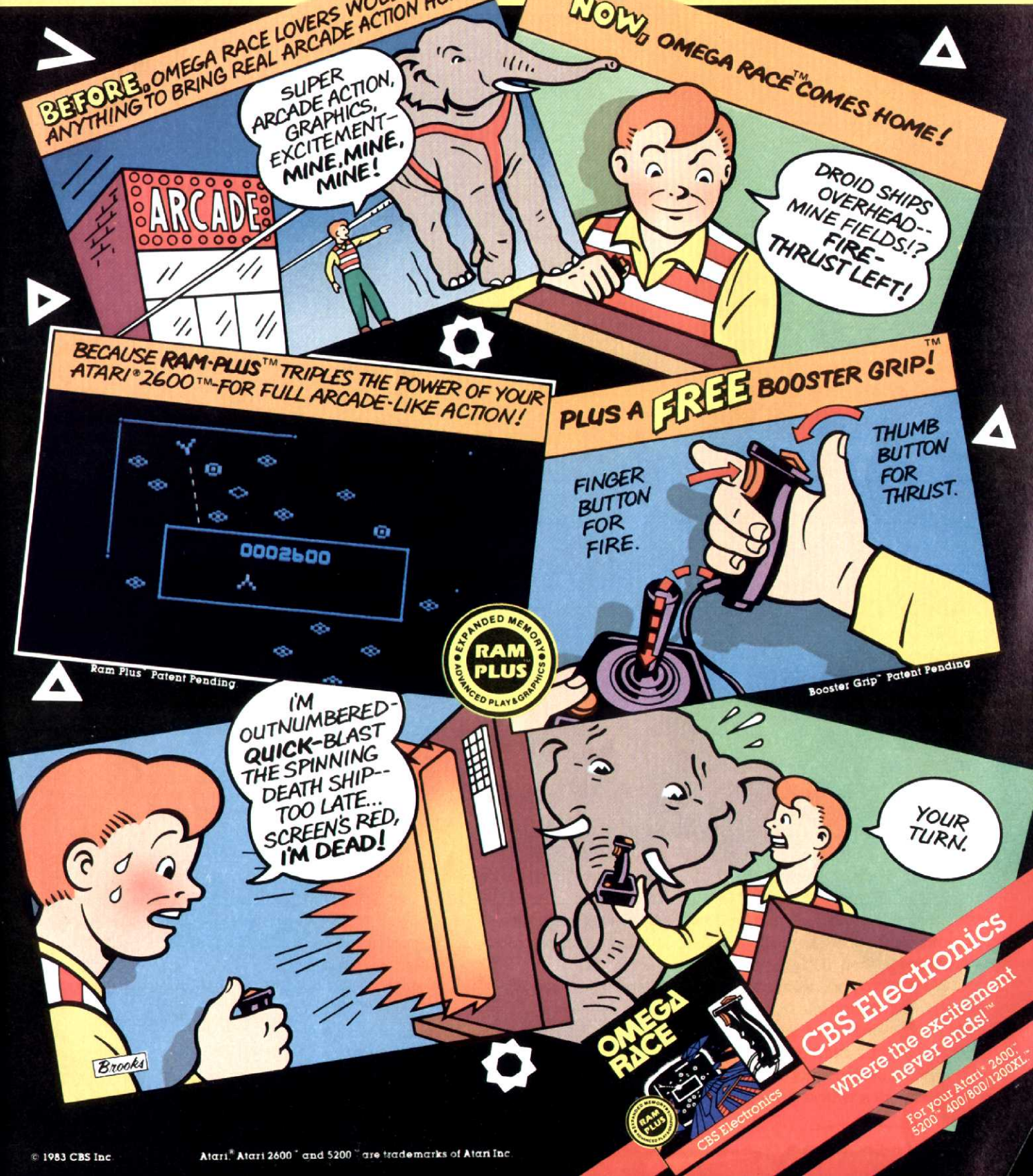
What do you think of Interview? _____

THE BALLY MIDWAY ARCADE THRILLER

OMEGA RACE™

FINALLY COMES HOME!

OMEGA RACE is a trademark of Bally Midway Mfg. Co.
© 1981, 1983, Bally Midway Mfg. Co. All rights reserved.



© 1983 CBS Inc

Atari,® Atari 2600™ and 5200™ are trademarks of Atari Inc.

Contract
RESIDENT

The Rites of Passage

An Open Letter to Video Games Designers

By Moses Ma

Our intent at Video Games *is to bring you the latest information, news and insights, reviews, product evaluations, playing tips and reports on a variety of developments whether it's via an interview with an industry notable, or behind-the-scenes coverage of one of the major conventions.*

However, there's another, equally important, side to Video Games. *This entails our dedication to providing a forum for industry issues which have an impact on all of us. We want to provide that voice so that you're more aware of the different events and happenings which are continually changing the complexion of products and business practices. There needs to be, after all, an increased sensitivity to the trials and tribulations of the individuals involved in creating this area of entertainment.*

With this in mind, Video Games *presents the following 'open letter' printed in the hope that any current, or prospective, game designers might better understand their rights and recognize the fact that steps are actively being taken to eliminate many of the problems which have existed for far too long.*

—Editor

At a recent computer graphics conference, a few dozen game designers from various companies had a rare opportunity to meet and talk openly. But instead of brainstorming about new game scenarios or hardware developments, the group spent much of the time discussing certain problems in the industry. Two grievances seemed to be universal and we thought it important enough to address these issues and what can be done about them.

The first concerns the lack of public recognition for game design teams. The second deals with the difficulty in obtaining author royalties. Screen credits and royalties are standard in virtually every other entertainment industry. However, in this case, game manufacturers are reluctant to view designers as talent rather than engineering labor.

Let's start with a little background on the life of a game designer. If you're a new or prospective game designer, you soon learn that the video game design world is not a perfect one. Game design is fun, but at times, it can be quite frustrating for a variety of reasons. In some companies, high level decisions (such as whether your game gets scrapped) are made by people who know little about video games.

Managers who do not design sometimes demand the impossible—to make a home game in six weeks, or a coin-op in two months. Once, a manufacturer fired an entire division partly because they were starting to organize themselves for collective bargaining. The entire staff was replaced by hungry hackers just out of college. So expect to see a fair amount of frustration in your career as a game designer. In the flush of exhiliration after receiving a job offer from a video game company, sit down and think cautiously for a little while.

To benefit the novice designer, here are a few words of advice. During hiring, it's not unusual for management to make many verbal promises, that are sometimes not kept. Insist upon a written contract and let your attorney review it. If they really intend to fulfill a promise, they won't mind putting it in writing. This sentence is worth memorizing, "IF YOU REALLY INTEND TO FULFILL THIS PROMISE, YOU WON'T MIND PUTTING IT IN WRITING." If an employer is offended by this statement, it's an indication of his real attitude. You should consider looking elsewhere for employment.

If that company has any integrity, they will respect you much more and take you more seriously, since you're presenting yourself in a more professional manner. You don't need to be afraid, since most companies are quite straightforward and honest. Next, don't *ever* sign a long-term, non-competitive agreement that restrains you from working in the video game industry after your termination. It's neither a standard, nor

fair practice in the industry, and you'll be sorry if you do. And finally, DON'T MAIL IN FLOPPY DISKS. People will only have as much respect for your game as you do. And be sure to register the copyright before you personally show your game around.

Horror stories abound in the industry. I can't tell any now, or I'll be up to my neck in libel suits. But most of the stories follow a typical pattern which goes like the following:

Your new game design employer tells you that if your game is successful, you'll be rewarded handsomely. He slaps you on the back and says, "We'll get rich together." And you think, "I'll get a royalty contract, but later...after I get some clout around here." The game gets finished, and the initial sales indicate a hit. So you say to yourself, "I'll wait...until it's really a hit."

And then it's really a hit. You walk into the vice president's office and demand royalties. And management says, "We were just going to do that! Boy, you're going to get a really big bonus come Christmas-time." So you wait five months until Christmas, and you get a small bonus check. In any other entertainment industry, what you got would be called "chump change." So you *finally* complain. And management retorts, "What are you talking about? You got the biggest bonus the company has ever given! You got more than any other engineer I've ever seen!"

Any other *engineer.* They calm you down, and make more promises. They talk about the slump in the market, or about corporate earnings being down. So you decide not to quit. After a while, management licenses the rights for the crossover to another market, or the cartoon is made, or it gets on the game network. This can mean vast sums of money.

Time after time, management smiles at you in the hallway, but you never see any money. You start to stew inside. Finally, you quit, thinking, "If these guys won't appreciate me...I'll find someone who does." And you start job-hopping.

When you're interviewing for another job, and you say that you designed about 50% of your hit game, do you think your ex-employer will back that up? Pride and memory always fight, so your ex-manager will probably recall designing 75% of the game himself! Your ex-employer might say something like, "Oh, yeah...he's a pretty good hacker...but he's awfully moody and doesn't work well with a team." This may not keep you from getting the job, but it definitely affects your negotiating position. This is when the lack of public recognition for your work really begins to hurt.

But even if you're lucky enough to arrange an equitable financial contract, there are other difficulties to be aware of. Sometimes the best way to describe how video game companies are run is to call it Management by Stochastics. One

month they fund you, and the second month they try to pull the rug out from under you.

One man said of his company that it's like having a random number generator doing the top level decision-making. The "hit syndrome" affects most companies. If your game doesn't look like an instant hit, with extremely wide market appeal, they'll scrap your project. Truly creative, evolutionary games with high appeal to smaller market segments don't stand a chance. Management usually prefers to stick with the safer route of cloning. Super This; That Deluxe, or Yesterday's Hit, Jr. On the other hand, if you don't get cancelled, they will test market your game to death. In an industry that's dominated by a technology race, it's sometimes suicide to wait too long to release a game.

The life of a video game designer is usually thought to be madcap and zany, but the truth is that, in some cases, management will drive you into becoming a "high strung primadonna." A lot of the fun has gone out of it. Not all of the fun, but much of it. There is simply too much greed and politics in the industry as it now stands whether for home products or coin-op creations.

On the other hand, considering the pressures of being a company executive in times like these, it's a miracle that they remain as compassionate as they are. There are a considerable number of company executives who gave many novice game designers their "big break" into the business. Manufacturers, from their own point of view, are actually quite generous to their game design *engineers.* The source of the difficulty is their inability to understand the creative needs of their game design *talent.* But game designers don't really understand the needs of company executives either. With a communication breakdown like this in the industry, it's no wonder there's so much room for improvement.

Improving conditions for designers would really have a marked impact on the overall state of the industry by improving the quality of games. A good first step would be to develop explicit guidelines for a "standard contract" between game designers and manufacturers, such as the one enjoyed by the Screen Writers Guild. Up to now, it was the manufacturers who decided what a fair and equitable arrangement was. With such guidelines in hand, designers could at least be educated before they enter negotiations, as is the case with their counterparts in other fields.

A good standard contract would understand the needs of both the game designer as well as the manufacturer. But certain conditions are vital to a good contract. One such condition is the incorporation of "screen credits" for the entire design team, either in the attract mode or the end of the game. But the entire team should be recognized: the designer, assistant designers, graphic artists, sound designers, and hardware engineers. Presently, the majority of manufacturers insist upon secrecy.

(Continued on page 81)

AT YOUR SERVICE

Plugging Into Interactive Telecommunications and Games

By Suzan D. Prince

The last time I carried a savings account passbook was a year-and-a-half ago. For 20 years I never left home without it; it gave me a feeling of tremendous security. I could touch it, examine it, show it to the friendly tellers for updating or presenting it as argument in case of human error. Then I moved and switched to a modern bank that issues cash machine cards only. No more "tangible assets": My entire financial existence, along with all the other depositors' wordly sums, existed solely in the memory banks of an unseeable, untouchable computer.

After the shock of never knowing exactly where my transparent transactions were located in the bank's free-floating system of bits and bytes wore off (it took about six months), I found electronic banking to be not only convenient and accurate, but an amusing pastime as well. Sometimes on my way into town, I'll stop in and punch the secret pass code just to see what the system is up to that day, whether it's processing fast or slow, whether the "user friendly" guide messages have changed, as they often do, or if, maybe—just maybe—the "house" has suddenly and accidentally deposited a "jackpot" in my account.

Telecommunications is surely changing the way the world works, shops, thinks, and of course, plays. Like the bankbook that is bound for obsolescence, some industry seers believe the ordinary, standard issue game cartridge—and indeed, the whole concept of isolated household game systems—is not on-

ly being seriously challenged but could wind up on the endangered list. The ROM cartridge's replacement is a bevy of alternative software delivery systems that are as mind-expanding as they are complex and that know no geographic boundaries.

Today, over 2,000 players a week in cities all over the U.S. and Canada tune their terminals into CompuServe, the world's largest commercial public database with more than 50,000 subscribers, collectively spending tens of thousands of dollars per month on $5 hourly telephone connect charges simply to join Megawars II. This high-speed, multiplayer real-time strategy game with the arcade flavor and souped-up 3-D color graphics accommodates up to 10 players at any one time, with each

player's computer screen serving as his or her cockpit window through which he looks at the others. As colonists with a seven-hundred-year history of chaotic fighting to protect their galaxy from Kryons and Acherons (two of the many ugly and evil creatures that inhabit the worlds of Megawars, SPCWAR and DECWAR—three of CompuServe's 37 on-line supergames), participants must master the intricacies of warfare to survive, and the smartest of colonists learn to think fast or die.

Because of its challenge and sophistication, Megawars is by far CompuServe's most popular game, and also its second-largest revenue producer, surpassing such services as news and stock quote retrieval, according to Bill Louden, product manager for personal computing services. Operators of multisystem games believe such set-ups are drawing players in droves, because they provide the human interaction that is missing from player vs. system games. Timesharing also allows for social benefits such as the "banter board" where opponents can tease each other, leave game-related messages, or just let off steam, knowing that a person—not a computer—will read and respond.

"It's true that some players prefer to play alone and to be able to constantly improve against a machine that stays constant," he says. "But eventually, people get tired of being humiliated by a computer in a game and want to go back to being humiliated by a person."

Louden readily admits, however, that timeshare games cannot and do not pretend to compare with the flash of arcade games. On the other hand, he points out, there's a competitive edge and a complexity that is absent from quarter-gobbling video arcades.

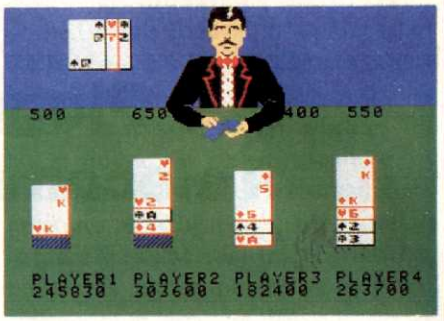
"Arcade games, and I include the home games through Atari and the like in this category, typically have a shoot 'em-up style, use three or four controls and depend more on luck than skill," he explains. "They tend to mesmerize players because they don't really use the thinking part of the brain—if you try to think too much, you often lose." Louden characterizes multiterminal games as "thinking games."

"Many have complicated rules, numerous fantasy characters and can

take hours or days to master," he says. "Players must make quick judgments about terrain, weather, invading forces and available fuel supply. They must depend upon intelligence, recall and strategic ability. It's this mental challenge that the players seem to enjoy most."

The manager says that so far, CompuServe is the only timesharing service that links North American players to one another in so sophisticated a manner; the company uses large, high-capacity mainframe computers that work the day shift as corporate data processors while reserving the overnight for hobbyists and an increasing number of first-time home computerists.

"Multiplayer, multiterminal games create a whole new level of complexity that most companies today can't carry," Louden says. "It takes a very sophisticated network with fast mainframes to handle 10 or 20 human players across the country."



Still, the Columbus, Ohio-based service is hardly alone in offering on-line, "real-time" alternatives to the memory restricted game cartridges. The Source, another popular commercial subscriber system based in McLean, Va., downloads a variety of single- and multiplayer games for a low overnight hourly charge. Control Data's PLATO, an interactive educational network, routinely offers a sideline menu of dozens of multiplayer adventure and strategy simulations (including a 50-player and up galactic war game called Empires), mostly to schools, universities, businesses and government organizations that can afford to tap into its costly database. There are also hundreds of private community bulletin board systems (CBBS) that modem-owning users can enter for free (except for telephone time), to collect an endless range of "home brewed" programs.

Games downloaded via cable TV are also gaining some popularity, among them PlayCable, a two-year-old joint venture of Mattel and General Instruments currently available in 15 systems across the country, and The Games Network, another joint venture between International Cable Casting Companies and Westwood Corp., an investment banking firm in Salt Lake City, which recently wound up a test of 100 households on the Group W cable system in Fullerton, CA. Warner-Amex's QUBE two-way cable system has also experimented on and off for several years with remote game playing.

And there's evidence that interactive gaming as a clearly preferred alternative to standalone cartridge systems is

gathering steam. According to recent market research by Booze, Allen & Hamilton, a management consulting firm, by 1995 U.S. households will spend $11 billion a year on home information services, including recreation. In the firm's study of 700 consumers throughout the country, 39 percent said they would use HIS-based video games. In another videotex test of 350 homes in San Diego by *Times Mirror*, participants most often listed video games as an "essential service" delivered by the videotex system, followed by shopping and product information, home bill-paying, late-breaking news and education. These results come hot on the heels of a Gallup Organization poll last winter that found 51 percent of all home computer owners used their units to play games, among other functions.

Additionally, it's apparent that the definition of "home" entertainment will broaden as Americans expand the limits of their living room fun. Last spring Travelhost Communications, a unit of Travelhost Inc., a large hotel-supply company, installed a premiere 100 computer terminals in a third of Chicago's Midland Hotel rooms. Now, with over 10,000 room terminals in 150 major hotels in 80 cities nationwide, including most Quality Inns, and several Hiltons, Marriotts, Sheratons, Holiday Inns and others, Travelhost expects to have a total of 100,000 systems in rooms by next month.

A $3 minimum charge for the first 20 minutes and 17 cents per minute thereafter (37 cents in prime daytime hours) allows guests to call up air schedules, restaurant menus, weather and news reports, and games such as backgammon, checkers and blackjack. Although guests can't play against other rooms, the hotel computers offer a degree of interactivity. For example, when it beats someone badly at backgammon, it flashes, "You are a rank amateur. Better luck next time," on the TV screen. Like most human services, a major credit card activates the terminal, with computer time billed to the individual's account.

For those who don't get their fill of coin-operated Pac-Man in the lobby, Inn-Room Video Games, Inc., a California firm, has recently installed video game consoles and cartridges in rooms in 15 hotels across the country. The company leases the systems to hotels, which, in turn, rent cartridges to guests, usually for about $5 a day. The firm says it hopes to expand its offerings to on-line entertainment and information services in the future. HotelTech International of Belvedere, Calif., meanwhile, says it will supply terminals to Amfac's Dallas-Fort Worth hotel in December. The "SuiteTalk" system offers a host of on-line information similar to the Travelhost Network for about $10 an hour, plus free information on room service, local restaurants, entertainment and hotel fire exits.

"Room computers will become more commonplace as more people come to depend on computers in their daily lives," remarks a spokeswoman for Holiday Inn. That's exactly the logic behind the Travelhost Network, says James Lokey, vice president of marketing for Quazon, the company that designs and manufactures the hotel terminals for Travelhost. "With an ever-increasing home user base, and with business travelers becoming increasingly familiar with—and dependent on—keyboard-based work, the demand for remote communications in all kinds of away-from-home settings is likely to soar," he says.

While corporations probably discourage expense account game-playing at 37 cents per prime time minute, Travelhost's member hotels have nonetheless found the young system to be as popular with business travelers as with vacationers. Myron Levy, Midland Hotel's general manager, says his guests find the computers "a curiosity, like black-and-white TV thirty years ago." Although the manager says he occasionally goes into a room to play a video game, he believes more kids than adults use the system for recreation, while the grownups look at such items as news and stock quotes and even loan amortization tables. "Personally, I couldn't figure out how to work the system," he admits, "but then, I'm over 50."

Levy's informal findings are contrary to others', who are discovering that the audience for remote game play, home or away, is primarily adult. Stuart Segal, vice president of marketing for Control Video Corp., which recently launched GameLine, a pay-per-play service for Atari VCS owners, says preliminary demographics of the CVC system indicate "heavy" adult usage.

"Of the 2,000 direct mail subscriptions we've received so far, we were

THE BEST GAME IN TOWN IS VIDEO GAMES MAGAZINE

SUBSCRIBE NOW and SAVE
12 ISSUES - JUST $30.00
A SAVINGS OF $5.40
(nearly 22 plays)

Mail to: **VIDEO GAMES**
Pumpkin Press, Inc., 350 5th Ave., Suite 6204, N.Y., N.Y. 10118

Enter my subscription to VIDEO GAMES VG-V2-3

☐ Send me 12 issues for $30.00 ☐ In Canada and foreign: 12 issues for $45.(

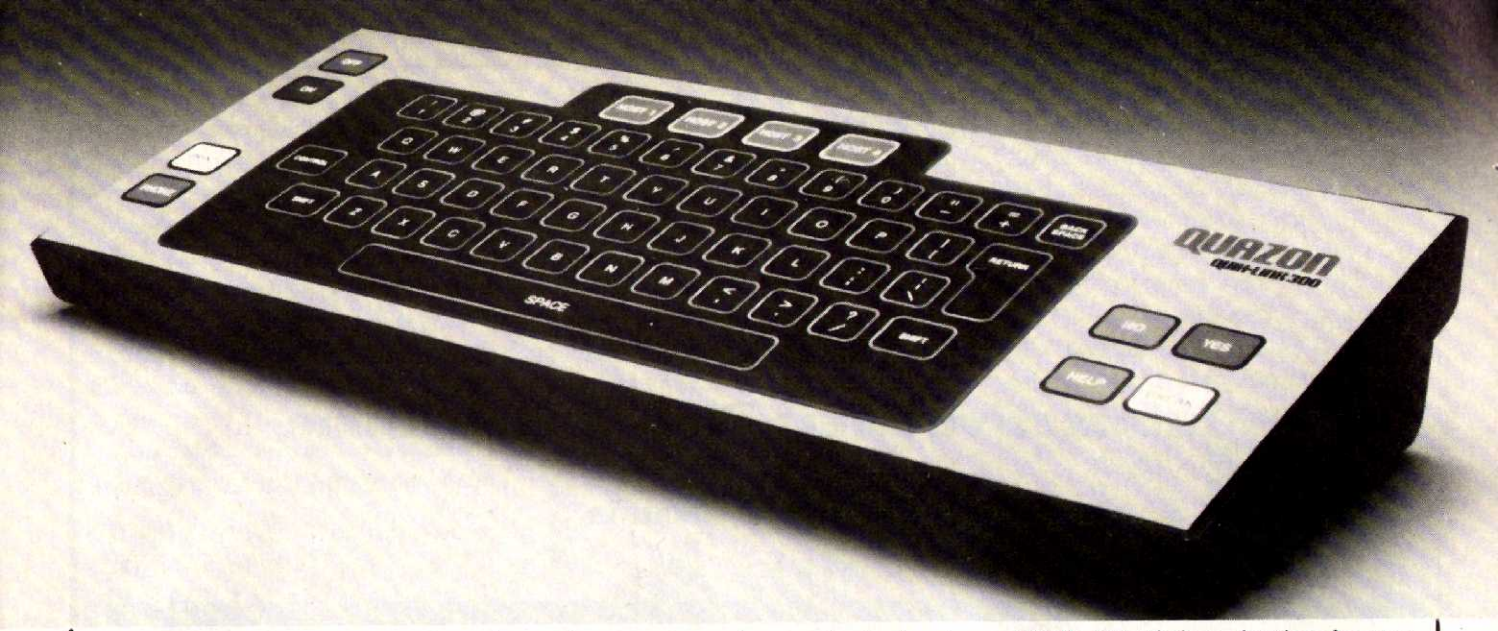
(Make check or money order payable to Pumpkin Press Inc.)

(Full payment must accompany order. No C.O.D.'s)

Name _____

Address _____

City _____ State _____ Zip _____



pleasantly surprised to find that the average age of the primary user was almost 26," he notes. Moreover, he says, the average monthly credit limit registered by users before signing on to the system is over $60. "We originally projected people would only spend around $10 a month to receive the games," Segal says. "This could mean there are a lot more grownup game buffs out there than we thought—a lot more closet game players who like the idea of playing on-line in the privacy of their own homes."

GameLine, with 55 titles now available at $1 per playing session, expects to have 250,000 subscribers at year-end, Segal says. Another CVC on-line service, SportsLine, providing sports news, starts this month. CVC debuted the concept last year, when cartridge sales were still booming. At that time, the company had no luck in persuading the most popular game producers, including Atari and Activision, to contribute programs to the delivery system, relying instead on producers of lesser marketing strength, such as Data Age, Telesys and Games by Apollo. But now that giants such as Atari and Mattel have experienced devastating sales losses, Segal says CVC offers these manufacturers a tempting marketing alternative, a cost-effective way to put new, as well as older, titles directly into player's hands, since down-loading games can determine their popularity and profitability before they are mass-produced and distributed.

"As of this month, we've signed the big four: Atari, Activision, Mattel and Coleco," Segal confirms. "Parker Brothers, too," he adds, noting "the software companies are beginning to recognize that it isn't the game business, but the game cartridge business that has softened."

Indeed, even traditionalists who advocate that users would rather ultimately own, than rent, their entertainment find their arguments weakening against the sheer variety of convenient alternatives now becoming available. Two companies, Altus of San Jose, Calif., and Air Video Inc. of Toronto, recently tested their answer to the portable video game by installing a tray of them into seat-backs on selected flights of Canadian Pacific Airlines (see Blips, *Video Games,* September '83). Each Altus Airplay tray holds five LCD games, (Air Video's holds three) supplied by Nintendo, Casio and others, and includes such titles as Snoopy Tennis, Mickey and Donald, Donkey Kong, Jr., Blackjack and Monday Night Quarterback. A layer of mylar plastic with touch-sensitive keys protects the games from food and drink spills. During the test period, passengers paid about $3.50 per flight to rent the trays.

"People seemed to receive it quite favorably," says CP Air's public relations director, Jim McKeachie. "One woman traveling with four kids phoned ahead to see if she could be assured of getting the game trays on her flight."

Interestingly, Altus' product literature stresses the games' adult appeal. "Lots of people, particularly frequent business fliers, are trapped in these seats for substantial periods of time and are bored to tears," comments Douglas Crane, Altus president. "This gives them a chance to relax and have fun on the way to their destination."

While CP Air is evaluating the questionnaires filled out by passengers during the experiment, other airlines are already slated for tests. "It's a question of when, not if, these video games will come on board," predicted Charles Novak, public relations director for United Airlines. He adds, "We're interested, but we're going to have to see how the traveling public likes it."

According to Crane, there's little doubt people will actively use the games. "As far as I'm concerned," he says, "we're looking at the Model-T of in-flight passenger entertainment. This is only the beginning." Still, analysts and others look on the phenomenon with mixed feelings. "Altus will probably either take off like gangbusters—or be an absolute flop," offers Donald Murfin, president of Lubrizol Enterprises, which has invested venture capital in Crane's firm.

But Michael Thorek, president of Air Video, maintains that now that CP Air has "broken the ice, there are several airlines interested in talking specifics about on-plane tests." Among the airlines scheduled to receive games are TWA, Pan Am, United and Delta. Additionally, Altus will test Airplay II, prototype on-board hand held computers (the Casio SX-700P will be used, along with a financial applications package) containing up to one megabyte of memory. The computers could plug into airlines' Airfone telecommunications system which would enable passengers to receive flight information right at their seats. Business users would also be able to send short memos and messages to their office computers, says Crane.

(continued on page 81)

MIKE USLAN AND THE EVOLUTION OF VIDEODISCS

Interactive Game Play Comes Home

By Richard Goodwin

Copyright © 1983 Interactive Productions, Inc. All Rights Reserved.

The interactive generation has begun. Arcade players around the country are crowding around Cinematronics/Starcom's Dragon's Lair and laserdisc owners are trying to outguess their friends with Vidmax's Disc. With RCA ready to introduce a new CED player that will rival the Laserdisc machines in terms of options and features, the marketplace is being set for an explosion in software for home use.

What may come as a surprise to some is that disc players have been around for a number of years but only now are getting the attention originally anticipated. In addition to superior picture quality and lower prices compared to the more prevalent videocassette machines, disc systems offer a broad range of games, catalogs and adventures that cannot be found on tape. Sears has already experimented with placing their catalog on disc, while others have marketed instructional discs ranging from gardening tips to the art of massage.

As popularity increases so too has the number of independent producers, brimming with ideas for making the most of this technology. In the forefront of this burgeoning field is Michael Uslan. In his 30's, Uslan has been actively involved in creative endeavors since he read his first comic book. Although he has a law degree, Uslan has written comic books and numerous trivia paperback quiz books in addition to teaching one of the first college courses on comics.

Over the last few years, Uslan, in association with Benjamin Melnicker, has been pursuing movies based on comic books. Their first project, Swamp Thing, *was a $2 million lesson in moviemaking. It was also a prelude to their big project, a $20 million version of*

Batman *to be produced with Warner Bros. next summer. In the meantime, Uslan is preparing an American Playhouse production of* Three Sovereigns for Sarah, *about the Salem Witch Trials and actively exploring the limits of interactive videodisc technology for home application. His first disc, a trivia quiz disc, will be out in time for Christmas with others scheduled to follow.*

Uslan spoke with Video Games *about his plans and hopes for the new field.*

VIDEO GAMES: What are you currently involved with?

MICHAEL USLAN: Right now, I'm up to my neck with these interactive videodiscs. We've got two productions going on later this summer, to be followed by several more, taking me up to March of 1984.

VG: How did you get involved with the discs?

MU: The discs came about through a company named VHD Programs, when they began to take the initiative in this country and look for producers who could handle this new interactive technology. I met with them and discovered they were interested in doing an interactive trivia disc. They had seen the TV trivia book I had done with Bruce Solomon, the Rock and Roll and the comic book trivia books and asked if we would be interested in producing it.

I then went to VHD school in California with their chief technician, and really learned the ins and outs of how to produce for this new technology; which really hadn't been born yet.

VG: How long did it take to learn the ins and outs?

MU: It was a concentrated period of about four days followed by the hardcore experience with their guidance of going through the first production. It was such an early stage that at times it was like the blind leading the blind. As we got into it, we learned there were more and more things that you could do with the medium; things you could do with the digital video effects and it got more and more exciting. I think it's going to be a very significant part of the future.

VG: How long did it actually take to produce the trivia game show?

MU: The game took about five months. We formed a company, Interactive Productions Inc., based in New York. This is the first company that is solely devoted to producing interactive video. The first project took five months and I worked on it with two associates, Bruce Solomon and Al Ruban. Bruce and I wrote the disc, based on our books and Al handled the directing chores and a lot of the technical aspects of producing the discs. At present, Al is producing and is also director of photography, on a film for John Cassavetes. He also played the character of Charlie who gets killed early on in the film.

Opposite page: Michael Uslan (at right) confers with co-producer, Bruce Soloman and Jack Larson about the latest of his creative endeavors. Above: Jack Larson and Noel Neill who portray Jimmy Olsen and Lois Lane in the Superman series.

VG: What categories are on the disc?

MU: Movies, television, comic books, rock and roll and commercials.

VG: You used different hosts for each section?

MU: Yes. There is some crossover but, for comic books we have Captain America and Spider Woman; for rock and roll we have Fabian; for movies and TV we have Noel Neill and Jack Larson plus a variety of hosts for the commercials. For comic books there is a special section on the *Superman* TV show which involves Noel, Jack, Captain America and Spider Woman.

I must tell you this story: We had a crew who was mesmerized by these two people. There wasn't one person who didn't grow up with the *Superman* TV show. Jack and Noel told story after story about every actor and all the different episodes and it was fascinating. We devised a little bit, leading into the *Superman* section where Jack and Noel get very nostalgic about people like Professor McTavish and Professor Pepperwinkle and there's interplay between Captain America and Spider Woman and Jack and Noel. The sequence ends when Spider Woman is saying, "Come on, can't you give us one jeepers Mr. Kent for old times sake?" And Jack says, "I've been writing for the Joffrey Ballet and the Metropolitan Opera for years, just to get away from that Jimmy Olsen stuff." She asks, "Won't you do it for *me?*" Finally, Jack turns and looks at the camera and goes, "*Jeepers,* Mr. Kent!" The whole crew just melted on the spot. It may sound silly but it was very special for everyone who was there.

VG: How long does the game play?

MU: It has an actual running time of 97 minutes. However, the estimates of the company say it would take the average player 21 hours to get through the game, because of the interactive elements involved. We made use of a number of modes of interactivity, including an enormous freeze-frame storage potential. Each section has 50 questions, followed by 50 answers, each one recorded on one frame. A person watching this, with his remote control unit, can advance it frame by frame. We have been able to pack an enormous amount of information into one disc. There's all kinds of other games and interactive elements involved. It can be a great party game, a great memory challenge if you want to just take it on a personal basis.

VG: Will the normal consumer need a detailed instruction booklet?

MU: Not really. A person who knows a

player capable of interactive video will have an understanding to begin with. It works off of a small remote control unit which is very clearly marked. On each quiz, we give them instructions, orally and in writing. We might auto-stop the disc, giving you all the time you need to think about the answer. It may say, "Push play or continue or see if you are right." On another one, we use branching, which is a kind of random access element; there may be a multiple choice, A, B, C, or D.

For example one choice may read: "King Kong was discovered on: A) Ape Island, B) Skull Island or C) Long Island." Depending on the answer you select, you press a channel number. Then you instantly random access to that part of the disc that says, "Sorry, Long Island is the wrong answer, obviously you know nothing about King Kong. You are minus five points and we move you to the *Citizen Kane* quiz." If you hit the right one, it accesses to the part of the disc that says, "Hey, you got it right and now have 10 points and it's on to the next *King Kong* question." Now, we've been able to program the disc using two channels of audio. One channel is a beginner's level and another channel has questions for experts—all using the same video.

Because you may not know too much about rock and roll, you may take that on channel A and take the beginner's quiz. You may know everything there is to know about comic books so you can take that part on channel B. It's very exciting stuff and has never been done before. You interact with the disc, and you're really a part of that game show.

VG: Have you had a chance to play it?

MU: We have a master and it plays very fast. It's a barrage of stills and clips and has bits with the hosts.

VG: It sounds like now is finally the time to buy a videodisc machine.

MU: Actually, now is the time to sit back and wait and here's why: There are two styles of disc players here in the United States, stylus and laser. The laser system is interactive and you can buy it right now but it is more expensive than the CED system. You can buy it right now and use the discs that are out but most of them are geared for kids—there's fun and games and now the Mystery Disc. There are some that are not as much set for entertaining as they are for instruction like The Art of Belly Dancing. That's not what I'm interested in doing at all; I'm interested in doing really entertaining programming.

The new RCA system debuts in September and it's RCA's first interactive machine and that's going to sell for about $299 which is a bit cheaper. It will do some things a little different than the laser machine. We are doing discs for both systems. We did the Trivia disc for the VHD system which would have been the third competing system in the United States. They have stopped their launch in the United States and they just introduced it in Japan and it's doing very well there. So now they're talking about another year and a half of so before launching in the United States. In the meantime, yes, the Trivia disc may turn up on both systems.

The video audience is fickle; instead of going through the process of pulling out a machine every few months, all you do is flip a disc and put a new heading on it. It will revolutionize the arcades!

VG: It seems that interactivity will save the disc machine and pump up the arcades.

MU: The discs will take over the arcades. They'll have to because the video audience is so fickle that instead of going through the process of pulling out a machine every few months, all you do is flip a disc and put a new heading on it. I think that will revolutionize the arcades.

We're also involved with interactive discs for education and industry. So we have three separate divisions all going at once. What's being called Level Three interactivity is just around the corner. I can safely say that within two years the industry will be into Level Three which is when a home computer will interface with a videodisc player. We're just doing our first discs now that will be programmable for Level Three. There is just nothing we won't be able to do. Let me tell you just one example of a Level Three disc.

There's a prototype of a CPR training disc with sensors in the dummy's throat, nose and lung area. It's hooked up to a microprocessor and the disc is playing with a doctor giving instructions. As he's giving the instructions, he's telling the student the first thing to do is clear the throat. As the student proceeds to clear the throat, there are sensors recording how far he's done it. The disc will randomly access to a point in the disc where the doctor says, "You've only done it 50 percent. You've got to clear it further, try it again." Then, when you do the artificial respiration, the sensors will instruct the disc to tell you, "No, that's too much air or that's not enough air." It's unbelievable because that's more feedback than if the doctor were there with you.

VG: What do you have in mind for the educational discs?

MU: I plan on taking a lot of very well-known characters, as well as some original ones, and doing discs with a major in-school distributor, whereby we'd be doing everything from biology to history. We could do something like a study of all the bones in the body and, using the Level Three, we could have bones of different colors and actually assemble them in the proper order, and can call them up through the computer.

As the technology goes throughout the entire school system, which the past five presidential and congressional studies have said *must* happen, then at that point this whole interactive technology will move strongly into the classroom. We want to be there first and right up front.

VG: What about your industrial work?

MU: Well for example, General Motors has brought in thousands of interactive machines. They are using them to train salespeople for showrooms. If you come in and want to buy a new Corvette, you look at it, press a button to find the colors available, options and whatever you want to do.

The United States Army is starting to use interactive discs to train young soldiers on how to use tanks. What they're finding is that a lot of the soldiers

Captain America and Spider Woman are TM and © 1983 Marvel Comics Group. All Rights Reserved.

Look for Spider Woman and Captain America (pictured above) to be in the comic book series.

are video games buffs and by using the interactive video, they are learning faster and better. The applications of that knowledge are astounding. We are getting involved in all these different ventures. Commercially we have some wonderful, wonderful things coming up.

VG: What are the two you mentioned earlier?

MU: First is the Marvel Comics game and puzzles disc. We are using live action and animation, provided by Marvel Productions. We are using all the different Marvel heroes and it's going to be all kinds of fun. Comic book fans should get a kick out of it. Younger fans, too, should get a great deal of enjoyment from the disc. We're also going to be utilizing state-of-the-art computer animation. It's very exciting and it looks incredible. One of the games will have Spider Man swinging through the city, from building to building and you're going to have to deal with that, or else he will miss the building and fall down.

The other is a *Tom and Jerry* interactive cartoon disc that we are doing with MGM Home Entertainment. Part of it is the classic Tom and Jerry chase but there's much more to it, using the unique aspects of interactivity.

VG: What else do you have in the works?

MU: We have some great properties that we have acquired: Comic book, non-comic book, as well as a deal brewing with a major publisher for a series of successful books that will be translated to discs.

VG: You can put your comic book course on disc, too.

MU: That's probably coming soon. Another arrangement we have with Marvel Comics is to put the Marvel Comics Library on videodisc.

I don't like putting all my eggs in one basket so I'm spreading it around.

VG: How many discs a year do you envision producing?

MU: We are ahead of the marketplace right now. We have to wait for the marketplace to catch up to us a bit. But as we do that, our plan is to have three discs completed by December with the possibility of a fourth disc. Going into 1984, I see the company doing seven to nine discs for the home consumer market plus several for education and several for industrial. We just have a really talented crew of engineers and video technicians, creative personnel put together and they're all experienced in this. there are *not* many people experienced in interactivity, believe me.

I think the field still has to stumble over its feet a bit and set its course straight. The Electronics Industry Association has incredible projections as do companies like RCA and MCA. I think it's just going to be enormous and there's going to be no stopping it.

RCA has really turned around the whole market. They adapted this marketing strategy where you give away the players and make your money with the discs. It's worked terrifically well and they have turned the corner and gotten this industry moving. You're getting a quality image that nothing else can touch; you're getting stereo sound and getting interactivity which I think will be very important.

VG: How long do you think it will be before the home computer user will have access to the Level Three technology?

MU: Two years, maybe even sooner. There are some major companies that are going to get into this, besides the ones you would normally think about. They have spent millions on research and development and there should be announcements fairly soon about their entrance into the interactive market.

Right now the videodiscs have the bulk of my attention. Come March, *Sarah* will have my attention. In the meantime, other projects will keep us going. Good things are worth waiting for. ▲

THE LASERDISC AGE BEGINS

Don Bluth's Animation Leads the Way to a New Coin-Op World

By Mary Claire Blakeman

In some circles they call him the "new Walt Disney." But Don Bluth would rather be known for himself—an artist dedicated to quality film animation and the man who helped bring "Dirk the Daring" to life in the ground-breaking laserdisc video game, Dragon's Lair (July *Video Games).*

The Disney comparison, however, is probably inescapable since Bluth worked for the granddaddy of film animation for almost 10 years, contributing to such movies as *Sleeping Beauty* and *Pete's Dragon.* And anyone who's seen even a few seconds of Bluth's work on Dragon's Lair can hardly be blamed for measuring the richness, colors and action against the standards set by Disney.

The reason for this is due to the fact that Bluth is continuing the tradition of "classical" animation, which means the backgrounds of film sequences are painted in full detail and characters move fluidly and naturally. This classical approach accounts for some of the startling reactions to Dragon's Lair because today's game players tend to experience animation only in terms of the flat, stilted effects of Saturday morning cartoons. By contrast, the animation of Dragon's Lair appears three dimensional and life-like because of the meticulous work that has gone into the film production.

In fact, it was largely Bluth's commitment to this kind of classical animation which led him to break away from Disney in the late 1970's. Live-action feature films were over-shadowing animation at Disney, so, on September 13, 1979, (Bluth's birthday), he and animators Gary Goldman and John Pomeroy left the company to establish a firm of their own.

The trio had worked nights and weekends in Bluth's garage re-discovering some of the lost techniques of classical animation and after leaving Disney, they released one of the fruits of their labors, a short film called *Banjo.* Then, moving into offices in Studio City, Calif., Don

Bluth Productions created the animated sequence of *Don't Walk Away* for the movie *Xanadu.* Eventually, Bluth got to work on his dream, a full-length classically animated film, *The Secret of NIMH,* which was released in 1982.

Around that time, Bluth started exploring ways to unite animation with computer technology in a popular form. *The Secret of NIMH,* with competitors such as *E.T.,* wasn't doing as well as expected at the box office, so when Rick Dyer approached Bluth with an idea for a video game, he was ready to hear about it. Dyer, president of Advanced Microcomputer Systems, had a dream of his own: A video game that would combine laserdisc and computer technology—a game that would become Dragon's Lair.

"He called it his fantasy machine," Gary Goldman recalls. "Originally, it was a slower, more intellectual game. He wanted our company involved because he liked the animation we did. So we started discussions about how to speed up the action to make it a popular arcade game."

It took only about two weeks for Bluth and his associates to decide to join Dyer and the game manufacturing firm, Cinematronics, in creating Starcom, the holding company which released Dragon's Lair in July. With video games outgrossing movies, the decision was partially based on the economic reality that Dragon's Lair would solidify Bluth's financial position. Also, the animators were known as innovators and the chance to be in on the newest thing looked irresistible. But deeper than those obvious motivations, Bluth saw Dragon's Lair as an opportunity to build a new audience for animation, and video games as a way to nurture young animators.

"I thought it would be great if I could make a film and put it in front of an audience in an arcade," Bluth says. "And the games are a perfect training ground for young animators. They can take risks. They can experiment until they learn how to use the principles of animation. Then they can move into feature films."

John Pomeroy adds that the games

Art courtesy of Don Bluth Animation.

Producers Don Bluth, Gary Goldman and John Pomeroy (pictured left to right) pose with storyboards from their first animated feature, The Secret of NIMH.

also attract the important entertainment audience between the ages of 14 and 20. "Dragon's Lair is attracting that audience and making them aware of what good animation looks like and how exciting it is," he says. "It's eliminating that taboo of animation being associated with seeing a 'baby movie.' So when our next film comes out, when people see it's done by the same people who produced Dragon's Lair, they'll want to go see the picture."

Already, the animated game is bringing new players into arcades around the country. "The game now attracts people who would go to a movie house instead of an arcade," says Pomeroy. "They're going to get a visual experience rather than just racking up computer points."

Some arcade owners are actually treating the game like a movie, surrounding it with crowd marquee ropes and red carpet, or setting up chairs for spectators. In one Encino, California arcade, so many people crowded around to watch the game that the operator turned it off at 2 PM each day, while in other locations, spectators are turning into game players, dropping quarters into Pole Position and Mr. Do while awaiting a turn on Dragon's Lair.

The theatrical influence of Dragon's Lair is also affecting the behavior of hotshot game players who sometimes play to the gathered crowd, swishing the air with imaginary swords during the moments when the laserdisc makes the screen turn blank on Dragon's Lair. Gary Goldman watched with amusement as one player/performer in a Los Angeles arcade got the crowd excited when he made it all the way to the lair of the dragon. As Princess Daphne seductively urged the player to save her, he dropped to the ground, did a 360-degree Michael Jackson-style spin, jumped up and waved his arms like a magician before hitting the game button. "Look at that chick," he yelled as the audience clapped in approval.

Such a response to the princess has earned Bluth some flak about the sexist nature of video games but he insists that the characters were developed with a tongue-in-cheek attitude and an eye for comic effect. He also points out that the princess has not kept female players away from Dragon's Lair and in one Denver tournament, three women tied with three men in competition on the game. While he makes no promises, Bluth hints that female characters may be more liberated in future games.

While the similarities between video games and movies are increasing, the games still demand unique features. When Bluth animated Dragon's Lair, he had to adjust his thinking to accommodate these special needs of game players. "You're trying to do a story with a plot, character and sound effects, like a mini-movie," Bluth says. "But at the same time you have to appreciate that it's a faster-moving film. In a movie, you would move more slowly, with 15 or 20 minutes to build up to a turning point. In the games you have to make decisions very, very fast."

Bluth estimates that in Dragon's Lair, the player has to make 200 to 250 decisions and encounters danger every one and one half second. Also, since the game is interactive, the animators had to give the player signals about when to act. "We had to keep the movie running in continuity and along the way, we had to throw in blatant clues for the player," Bluth says.

"We discovered in the first two months that we were not being clear to the player what the problems were," adds Gary Goldman. "After the AOE (Amusement Operators Expo) and getting feedback from other people, we decided we needed to add more dangers to the player and limit the options so the player would know exactly where to go to escape. So then, the problem would be skill, it would be a question of whether the player could get through there in the right time."

Jim Pierce of Cinematronics and Erin Bromley of Coleco both emphasized this need for challenging the players' skill, Goldman adds, and they also pushed for the idea that Dragon's Lair be something more than another maze game.

Unlike video games where an engineer programs the action, Dragon's Lair grew out of this kind of team effort in which a group of writers from Ron Dyer's company, Advanced Microcomputer Systems, laid out the concept and passed it on to the animators for exploratory story boards.

"They would send us stick figures of the action and then we'd glorify it into staging that was dramatic and cinematic," Goldman says. "We'd sometimes get into conflict about whether we were staging for a film or game because games and movies are vastly different."

After establishing the basic outline for game play, Dragon's Lair was broken up into episodes with several dozen scenes. Each scene contained a threat and resolution of the threat and the episodes were laid out in story boards. The sketches were then refined by "clean up" artists who drew them on paper and then, using a color xerographic process, the sketches were transferred to plastic

sheets called cels. A cel represents one twenty-fourth of a second of film and several layers of them can be used for any moment of action.

In Dragon's Lair, as much as five sheets could be used for one cel compared to 13 or 14 levels of drawings for a split second of a movie like *The Secret of NIMH*. Some cels may contain only a bit of background detail on the entire sheet. For instance, in Dragon's Lair, one sheet of a cel had nothing but a few water bubbles from the boating scene in the game. The cels are painted, filmed in sequence and then transferred to video tape. The Dragon's Lair tape was then sent to Advanced Microcomputer Systems which recorded it on the laserdisc and programmed instructions into the game so it would do things like cue up a death scene when a player missed a shot.

The animators had to do more than technically adapt their craft to Dragon's Lair, they also had to adjust to the realities of budgets for games as opposed to movies. One minute of an animated feature typically costs $100,000. In comparison, Bluth produced Dragon's Lair for approximately $50,000 per minute and the game contains 24 minutes of animation. Goldman says the cost reduction resulted because the animators "got very clever."

"We didn't take that many shortcuts," he says, "But when Dirk runs to the right, left or forward we would stage it so he could run the same way instead of doing a brand new run every time. We could never do that in a feature because there are one million hard core animation fans and they are unforgiving on re-use."

The animators had to work not only smarter but also faster. A feature like *Secret of NIMH* took two years to produce while Dragon's Lair was done in a little over four months. Given this pace of production Bluth says he plans to come out with five new games per year.

One of the new games Bluth plans for introduction is Space Ace, which should be released by the beginning of the year. Like Dragon's Lair, this interactive laserdisc game has a basic plot and specific objectives for the players. In Space Ace, a young man named Dexter is hit by an "infanto ray" by an alien villain, Borf. The ray changes Dexter into a young teenager much to the dismay of his girlfriend Kimberly. Borf kidnaps Kimberly and tells Dexter that if Earth does not surrender to him, he will hit the planet with the "infanto ray" turning everyone into little babies.

The player has to maneuver Dexter through various predicaments so he can save Kimberly and the world and once a certain number of points are scored, the screen blinks red. Then the player can hit an energizing button and Dexter becomes a full-grown man. "Dexter becomes 'Space Ace' at that point and he is stronger and can take on any villains," Bluth says. "The game gets risky and there are greater dangers but the player can earn more points then."

Bluth also reveals that the player will have to make more decisions about which way to travel through the game. "You can be protective and go the safe route," he says, "or you can go the more challenging way. You might try the safe way once and awhile and then switch to the more challenging way. I think this will give the game a longer life."

"And there'll be a great wrap up at the end," Bluth adds, "It will be like a big wrap in a movie and it will be a surprise ending."

Space Ace will also offer more com-

plicated challenges Bluth says because he understands that much of the success of Dragon's Lair was due to it being the first laserdisc game on the market. "The second game has to be a better game because the novelty won't be there," he says. "We're aware of that."

So Space Ace may move almost 50 percent faster than Dragon's Lair. It will have stereo sound and richer detail in the animation. While Dragon's Lair had 14 tracks of sound effects, including two for music and three for dialogue, Space Ace will have even more tracks for speaking parts of the characters.

The additional dialogue is an important part of Bluth's strategy for improving Space Ace. "Watching kids play the games in arcades I thought, 'If that's how smart they are, then we'll go back and be a little more clever and make it harder,'" he says. "So we will deliberately try to confuse the player with dialogue and signals so they will have to concentrate very hard to find the true clues in there."

Voices in Space Ace may also attempt to confuse a player by offering clues that are the opposite of the correct action. Instead of telling a player to move to the right to escape danger, the voice track might advise running to the left.

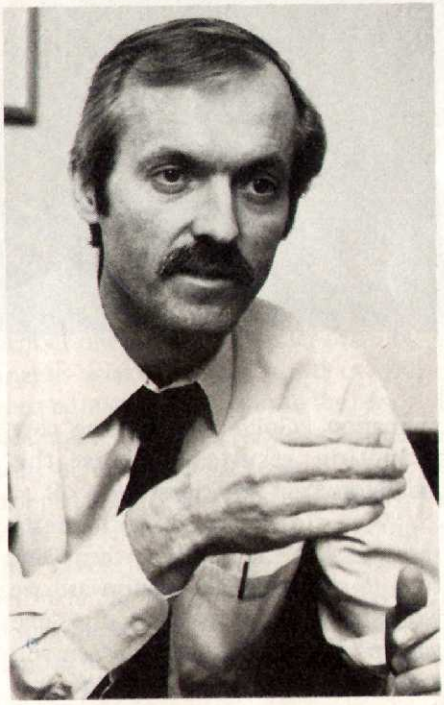
Also, Bluth will use rhythms as another distraction in game play. "In Dragon's Lair I thought I was making it more difficult for players by simply increasing the speed," he says. "But it turned out that the duel scene wasn't fast enough. The game players' brains, unlike mine, are very fast and their hand-eye coordination is incredible. So I gave them erratic rhythms in the next game that will be confusing because its not like a steady rock rhythm.

"We will also make the dangers more subtle," he adds. "We flashed the dangers brightly in Dragon's Lair but we won't do that anymore. You'll just have to figure it out yourself."

Gary Goldman points out that advances in technology will enable the animators to continue offering new challenges to players. "The player won't be aware of it but more sophisticated technology will mean there are no interruptions on the laserdisc," he says. "There may be companies using both sides of the disc and we may get faster access on them as well."

In addition to animation, Bluth predicts that live action film may be used in interactive games. He thinks the future will also bring larger screens for the games and eventually, more movie tie-ins. "I think there will come a time when a movie and a game are released simultaneously," Bluth says. "Wouldn't it have been wonderful if there was a laserdisc game of 'E.T.' that was a good game in which they used the same sets and actors for the game as they did for the movie."

Technology may bring about 3-D or holographic games, but Bluth sees few changes in game themes of the future. His company may produce games based on jungle adventures or haunted house themes, but fundamentally, Bluth views



Don Bluth discusses his films, arcade games and the overall future of animation.

the conflict of good and evil as a universal, everlasting story line. As a former English major, he reads the classics of Shakespeare, Melville and Dickens for inspiration and points out that basic stories have changed little over the centuries. "We're still telling the same old Greek tragedies," he says. *Star Wars* was not new, it was a fresh re-telling of the same old story about good and evil."

This attitude about game themes may bring a new kind of stability to the throw-away mentality surrounding video games. Goldman points out that Dragon's Lair was set in the past on purpose so that it could be pulled from distribution when its popularity wanes and perhaps re-released in the future in the same way that classic movies are revived.

"The classical approach to animation creates a longevity that not even *Gone With the Wind* enjoys, Goldman says. *Snow White*'s out there 45 years after its initial release and it's number three in the movie kingdom. That's why we believe that if you go ahead and spend the money on animation, with all the special effects and the beautiful backgrounds, it will have a longevity that other projects don't have. It's timeless."

This long-term view, coupled with the fact that laserdisc games are interchangeable, may lead arcade owners to establish game libraries similar to film libraries. "This arcade owner could decide to pull Dragon's Lair, change the game to Space Ace and then bring out Dragon's Lair a few months later when demand has built up again," Goldman says.

Whatever the changes of the future, the effect of Bluth's animation on the current state of games is undeniable. "I don't think the young people will be the same after they play the animated games for a while," he says. "The big companies are all competing and the race is to the visuals. They will come to Hollywood for the visuals and we'll join hands with the engineers and you'll see science and art produce visual entertainment that's as exciting as *Star Wars* or anything Hollywood can do."

With Dragon's Lair, Bluth has set a standard with which other game companies will have to contend. "My fear is that other animators will produce junk that looks like Saturday morning television," he says. "There's a great danger that if they do, it will kill the market."

But Goldman says that smart companies will realize they have to surpass the animation of Dragon's Lair: "For the next person that comes out with an animated game, if they can't match our look, they had better have a darn good game."

With Dragon's Lair, players have gotten an increased dose of visual stimulation and Bluth says they will no longer settle for standard computer graphics. "We can't go back to dots and sticks," he says. "We've shattered that."

Now that Don Bluth has upped the ante—turning game graphics into artistic animation—the rest of the game industry has little choice but to follow suit.

Now! The greatest joysticks of them all* can be used with Colecovision and TI Computers!**

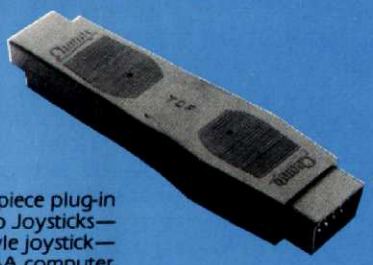
THE Champ #1 USA

You asked for it. And Championship has come through again. With two adaptors—one for Colecovision, the other for TI Computers —built to the same high standards we set for our sensational joysticks.

For Colecovision...A keypad controller, with 7 foot extension cord, makes our Champ Joysticks—or any Atari-style joystick—compatible with the Colecovision 2400.

Champ Adaptor No. 1 (CA-340)

Champ Adaptor No. 2 (PC-310)



TI Computers...One piece plug-in adaptor makes our Champ Joysticks—or any other Atari-style joystick—adaptable to the TI 99/4A computer.

*The Super Champ (JC 250), the Remote Champ (RC 350) or Mini-Champ (JC351).

**(Or any other Atari 2600 compatible joystick).

Championship electronics (U.S.A.) Inc.
711 Grandview Drive
South San Francisco, CA 94080
(415) 588-3015

COMPUTER MAIL ORDER — COMPUTER MAIL ORDER

C.M.O. TOP 100

1. Donkey Kong	$39.00	51. Story Machine	$24.00
2. Zaxxon	$29.00	52. Frenzy	$27.00
3. E.T. Phone Home	$39.00	53. Starcross	$29.00
4. Miner 2049er	$35.00	54. Morloc's Tower	$16.00
5. Dig Dug	$35.00	55. Starblazer	$25.00
6. Choplifter	$29.00	56. Galaxian	$33.00
7. Donkey Kong Jr.	$39.00	57. Target Practice	$12.00
8. Canyon Climber	$25.00	58. Curse of Ra	$16.00
9. Snooper Troops #2	$34.00	59. Fantastic Voyage	$28.00
10. Word Wizard	$59.00	60. Rescue at Rigel	$24.00
11. Picnic Paranoia	$34.00	61. Rear Guard	$19.00
12. Jumpman	$29.00	62. Star Raiders	$33.00
13. Shamus	$34.00	63. Invasion Orion	$19.00
14. Letter Perfect	$109.00	64. Missile Command	$29.00
15. File Manager 800	$69.00	65. Pool 1.5	$27.00
16. Preppie	$24.00	66. Crossfire	$36.00
17. Astro Chase	$25.00	67. Snooper Troops #1	$36.00
18. Blade Black Hole	$27.00	68. Datestones of Ryn	$16.00
19. Pac Man	$33.00	69. Turmoil	$28.00
20. Baja Buggies	$25.00	70. Asteroids	$29.00
21. Crush, Crumble & Chomp	$24.00	71. Dragon's Eye	$24.00
22. Wayout	$27.00	72. Mule	$32.00
23. Zork II	$29.00	73. Claim Jumper	$26.00
24. Visicalc	$159.00	74. Basketball	$29.00
25. Atari Writer	$49.00	75. Survivor	$26.00
26. Three Little Pigs	$25.00	76. Speed Reading	$59.00
27. Upper Reaches of Apshai	$16.00	77. Firebird	$34.00
28. Starbowl Football	$24.95	78. Typo	$26.00
29. Dreibs	$26.00	79. Sneakers	$24.00
30. Protector	$34.00	80. Anti-Sub Patrol	$16.00
31. Frogger	$25.00	81. Zork I	$29.00
32. Lunar Leeper	$24.00	82. Alien	$29.00
33. Wizard of Wor	$34.00	83. Pacific Coast Highway	$17.00
34. Kindercomp	$21.00	84. Bank Street Writer	$49.00
35. Moon Shuttle	$22.00	85. Stratos	$24.00
36. Home Accountant	$55.00	86. Serpentine	$32.00
37. Temple of Apshai	$29.00	87. Ultima I	$32.00
38. Spell Wizard	$39.00	88. Fast Eddie	$21.00
39. Nautilus	$26.00	89. Facemaker	$24.00
40. O'Riley's Mine	$22.00	90. Deadline	$35.00
41. Soft Porn	$27.00	91. Rhymes & Riddles	$21.00
42. QIX	$33.00	92. Ricochet	$16.00
43. Wizard & Princess	$29.00	93. Defender	$33.00
44. Centipede	$33.00	94. Attack at Epcy 4	$27.00
45. Strip Poker	$24.95	95. Teletalk	$39.00
46. Juggles House	$23.00	96. Space Invaders	$29.00
47. Hard Hat Mack	$28.00	97. Space Eggs	$24.00
48. Slime	$26.00	98. Bandits	$28.00
49. Gorf	$32.00	99. Chess	$29.00
50. Juggles Rainbow	$23.00	100. Mission Asteroid	$22.00

HOME COMPUTERS

ATARI

ATARI 600XL	$149
ATARI 800XL	$269
ATARI 1200XL	CALL
ATARI 400	CALL
ATARI 800	CALL

1010 Program Recorder	$74.00	KX7102 Arcade Champ	$75.00
102040 Col. Printer/Plotter	$249.00	Axlon 32K RAM	$59.00
1025 80 Column Printer	$449.00	Axlon 48K RAM	$99.00
1027 Letter Quality Printer	$299.00	Axlon 128K RAM	$299.00
1050 Disk Drive	$379.00	Intec 32K Board	$59.00
1030 Direct Connect Modem	CALL	Intec 48K Board	$85.00
CX30 Paddles	$12.00	Intec 64K Board (400 only)	$99.00
CX40 Joystick	$8.00	Percom 88-S1	$329.00
CX42 Remote Joystick	CALL	Percom 88-S1 PD	$469.00
CX77 Touch Tablet	$69.00	Atari 400 Keyboard	$49.00
CX80 Trak Ball	$49.00	Anchor II Modem	$79.00
CX85 Keypad	$105.00	Rana 1000 Disk Drive	$319.00
CX418 Home Manager	$69.00	Alien Voice Box	$119.00
CX488 Communicator II	$229.00	Okidata Printers	CALL
KX7098 Atari Accountant	$209.00	Epson Printers	CALL
KX7101 Entertainer	$69.00		

=WEST=
1-800-648-3311
In NV call (702)588-5654, Dept. 1225
P.O. Box 6689, Stateline, NV 89449
Order Status #: 588-5654

=CANADA=
1-800-268-4559
In Toronto call (416)828-0866, Dept. 1225
2505 Dunwin Ct., Unit 1B,
Mississauga, Ontario, Canada L5LIT1
Order Status #: 828-0866

=EAST=
1-800-233-8950
In PA call (717)327-9575, Dept. 1225
477 E. Third St. Williamsport, PA 17701
Order Status #: 327-9576

No risk, no deposit on C.O.D. orders. Pre-paid orders receive free shipping within the UPS Continental United States with no waiting period for certified checks or money orders. Add 3% (minimum $5.00) shipping and handling on all C.O.D. and credit card orders. Larger shipments may require additional charges. NV and PA residents add sales tax. All items subject to availability and price change. We stock manufacturer's and third party software for most all computers on the market. Call today for our new catalog. CANADIAN ORDERS: All prices are subject to shipping, tax and currency exchange fluxations. Call for exact pricing in Canada.

Spectravideo's new Quickshot™ III gives you a better handle on Coleco™ Games

With Spectravideo's new Quickshot™ III joystick, you'll really be able "to handle" those challenging Colecovision games.. whether it's Coleco's own games or the exciting ones Spectravideo now makes for Colecovision.

Not only is the Quickshot III a big improvement over other Coleco-compatible joysticks, we think it's the most advanced, superbly-crafted joystick controller in the world.

The two buttons (for separate functions) on the grip make one-hand play possible, and this is a real advantage. However, if your trigger fingers tire, your can simply switch to two-hand control by employing the two fire buttons on the controller base. The grip itself is contoured and unbelievably comfortable, and the easy-read Numeric Keypad allows you to select game levels and number of players. The Quickshot III also features self-stabilizing suction cups and a convenient extra long cord.

If you're tired of coming out second best to those tough (but fun) Colecovision games, pick up the Quickshot III. And show 'em who's boss.

- *Two sets of independent fire buttons.*
- *Special "Easy Read" Numeric Keypad.*
- *More comfortably designed contoured handle.*
- *Extra long cord plugs into either Colecovision game machine or Spectra Video's Coleco Game Adapter.*
- *Built-in suction cups.*

SPECTRAVIDEO™

Quickshot™ III

SPECTRAVIDEO INC.
45 SOUTH SERVICE ROAD
PLAINVIEW, NEW YORK 11803

All Spectravideo products are represented Nationwide by The Lexington Group (201) 664-8611

Colecovision is a trademark of Coleco Industries, Inc.

FANTASTIC FANTASY

Data East's Bega's Battle

By Mary Claire Blakeman

Sure laserdisc games look good, but are they fun to play?

Now that Dragon's Lair has taken the shine off the newness of these toys, players are, hopefully, taking a harder look at laserdisc games while manufacturers are trying to outdo each other with this technology.

One company, Data East USA, is betting that Bega's Battle will be the game to show how standard video game playability can combine with the visual possibilities of laserdiscs. "This game was designed to play," says Bob Lloyd, president of Data East USA, "it's not just to watch."

Edrick Haggans, the marketing manager for the Santa Clara, Calif. Company, adds that the game moves beyond currently available laserdisc machines. "The graphics in a game like Dragon's Lair are superb but its playability is limited," he says. "Once you memorize where to move the joystick, you can play to the end almost every time. With Bega's Battle we have the time proven playability of video games but with the visual effects of the laser discs."

Data East achieves this effect in Bega's Battle by using the laserdisc for both static and moving backgrounds and then generating the game's characters with a standard printed circuit (p.c.) board as in other arcade games. The joy stick controls the character's movements across the screen throughout play. There's no pause or interruption during play, unlike Dragon's Lair in which the player affects Dirk the Daring's antics only when moving him out of danger.

In Bega's Battle, a "save the world" showdown between good and evil, the warrior Bega and other game characters appear as digitized images on the bottom of the screen during play. The background scenes, however, are complete colorful pictures ranging from an ethereal pagoda to an exploding volcano. In the attract mode and shots which come between the play action on each level, animation, provided through the laserdisc, gives the characters a lifelike look distinct from the computer generated images.

Lloyd says Data East chose this approach over several other applications of the laserdisc technology to video games. "In Dragon's Lair, the player uses a button with memory and timing to go from one frame to the next," he says. "In Sega's Astron Belt, p.c. board graphic overlays interface with the laserdisc

system. Then there's the third way which is how Data East does it. And that is to have a laser backdrop with a story line pulling the player through graphic overlays which are a game in themselves."

"This game is challenging to the best player," he adds, "because of its long lasting game play and laserdisc story line."

To further demonstrate its commitment to playability on Bega's Battle, Data East chose the Sony Industrial Laser Disc System for use in the game. The system pushed the price of the game up, but Lloyds says it is worth the extra cost because it will mean less down time for operators and players. In unveiling the game for company distributors, Lloyd expressed Data East's view that "using a commercial laserdisc built for industrial use rather than the home version laserdisc was like putting a standard commercial video game into an arcade rather than an Atari VCS effort." Lloyd also points out that Sony provides a nationwide service system.

This investment into a long-lasting, slightly more expensive system, reflects the company's philosophy towards business: Data East USA is a wholly-owned subsidiary of the Tokyo-based Data East Corporation, a firm which believes in slow growth over the long term. The Japanese parent company is known for hit games in that country where it has 15 percent of the market, and this past summer it had a winner in Pro Soccer which outranked Atari's Pole Position in popularity.

In 1976, Tetsuo Fukuda, the head of Data East in Japan, realized that his electronics engineering company could provide video game operators with interchangeable games. While players may be oblivious to convertible games, they have been important to some arcade owners struggling to survive the past two years. Operators can change graphics on the side of the machines and switch p.c. boards and other parts on the inside. While Mr. Do is perhaps one of the best known successful conversion kits on the market, Data East also produced a good, solid convertible in the game BurgerTime which is now available to the home market through Mattel.

The Data East creation, known as the Deco Cassette Interchangeable Game System, enables operators to switch games in a matter of minutes. When operators buy a basic, interchangeable cabinet from Data East, they purchase a system with three p.c. boards which are activated by a microcassette tape and

key module that works with the tape to unlock the p.c. boards when the machine is turned on. By switching the tape and key module of one game for the tape and key module of another game, a Data East Bump 'N Jump can quickly become its Pro Bowling.

The U.S. branch of Data East was set up in 1979 and began distributing Astro Fighter in 1980. More than 75 full-time game developers and engineers create the games in Japan which are then sold in that country or adapted to the U.S. market.

Since Data East has already positioned itself in the market as a maker of convertible games, the company sees the development of Bega's Battle as a logical move because laserdiscs are also interchangeable.

"The discs are by definition, interchangeable, even though they are not interchangeable among different com-

Slides
Transporters
Cannon
STARRING BOUNTY BOB
MINER 2049ER.™
THREE SCREENS TRIPLE THE ACTION.
You're trapped in a uranium mine with deadly mutants and loads of uranium. In three danger-filled screens, you collect uranium, fight mutants, even get shot out of a movable cannon.
NOMINATED "VIDEO GAME OF THE YEAR" ELECTRONIC GAMES MAGAZINE
FOR ATARI VCS 2600™ AND TI 99-4/A
TIGERVISION®
Tiger Electronics, Inc.
909 Orchard, Mundelein, Illinois 60060
(312) 949-8100
Atari, TI and Miner 2049er are trademarks of Atari, Inc., Texas Instruments, Inc. and Big Five Software, Inc. respectively.
© 1983 Tigervision.

panies," marketing manager Haggans says. "As the technology evolves in this industry, we have to go with it or lose out."

The company plans to stay competitive in the laser disc arena and will release another disc game in January. But Haggans points out that Bega's Battle is only one of 15 other games currently produced by the company. "The main area of our business is not laser," he says, "and we are committed to the Deco Cassette system."

"One technology, either the interchangeable system or the laser, does not pay for the next technology," Haggans adds. "The disc will have to pay for itself."

Japanese Super Heroes Get Americanized in Bega's Battle

Americans are not the only ones who like superheroes. The Japanese are fond of them too, especially when they save the world from destruction.

In the Japanese movie *Genma Taisen,* which translates roughly into *Armageddon,* the warrior Bega fights to defend the human race against dark forces. But Bega cannot defeat these forces alone so he finds a woman named Luna, who has the power to transform people into super natural beings. Bega, Luna and their friends join their individual powers in fighting the bad guys in an ultimate showdown between good and evil.

These characters are now taking their powers into the video game world as the protagonists in the first laserdisc game from Data East USA: Bega's Battle. The game action begins with an animated cartoon of Bega and Luna complete with soundtrack music by Denny Jaeger, the man who contributed to the sounds in Walt Disney's Epcot Center and to the television series *The Powers of Matthew Star.* Jaeger was just one part of a creative team at Media Works, a video production company in Mountain View, Calif. that worked with Data East on Americanizing the game.

In stage one of the game, Bega must enlist the aid of as many Luna characters as possible, since she is his key to additional help. Bega has to avoid a hail of bricks flying off a skyscraper, while also touching nine Luna figures to help in his quest. In stage three, Joe, a young man who looks somewhat like an English punk rocker, appears on the screen. With Luna at his side, Bega touches Joe who joins the group. Joe has the power to encircle the entire group with a glowing yellow barrier shield which protects them as long as Joe is not killed.

Another special character, Sony, is a young black man who wears sunglasses and careens around on a skateboard. Sony's power is the ability to transport all of the characters back to safer screens if they get into trouble. Eventually, the group meets the Indian who adds firepower to their arsenal.

During play, any one of the additional characters can be killed along with Bega. When the Luna characters are all used up, Bega no longer has access to the others.

Through 40 screens of play, Bega's Battle develops in three stages. The characters encounter everything from glowing orange skulls to a treacherous dragon that can only be killed with skillful shots by the player. The various obstacles are actually all forms of the evil nemesis of the game, the character Vargah.

Unlike other video games in which the player has only one stream of firepower to destroy enemies, every character in Bega's Battle can shoot in unison with the others. In testing of the game in California, one player discovered the value of group effort. "It's really hard to win in this game when you only have one man fighting," he said.

The appearance of the stream of shots was one of many adaptations Data East USA made on the Japanese version of the game. "We made the firepower much sharper and more focused," says Edrick Haggans, marketing manager for the company.

Other changes were made through collaboration with Media Works. "We took out the Japanese cultural innuendos," says Leana Alba, president and producer at Media Works, "Then we turned it around to appeal to American kids, to what they relate to." The sound track, especially contributed to this American market and a special rock and roll song was written for the game. Denny Jaeger worked with a Synclavier, a highly sophisticated 16 track synthesizer, to produce the soundtrack.

The changes in Bega's Battle were not made just to accommodate American tastes, however, but also to adapt it to the new videodisc technology. The partnership between Data East and Media Works marks one of the first times a game manufacturer has combined with a video production company to create an arcade machine. "The videodisc is such a new technology," says Leana Alba. "There's not that many people who have done disc programming at all, much less tying it to a computer for an arcade game. It was a challenge for us and we thoroughly enjoyed the project."

Alba observes that the growth of videodisc games will probably produce more joint ventures with film producers. "I think there will be more video producers working with game developers because it's an incredibly complex process," he says.

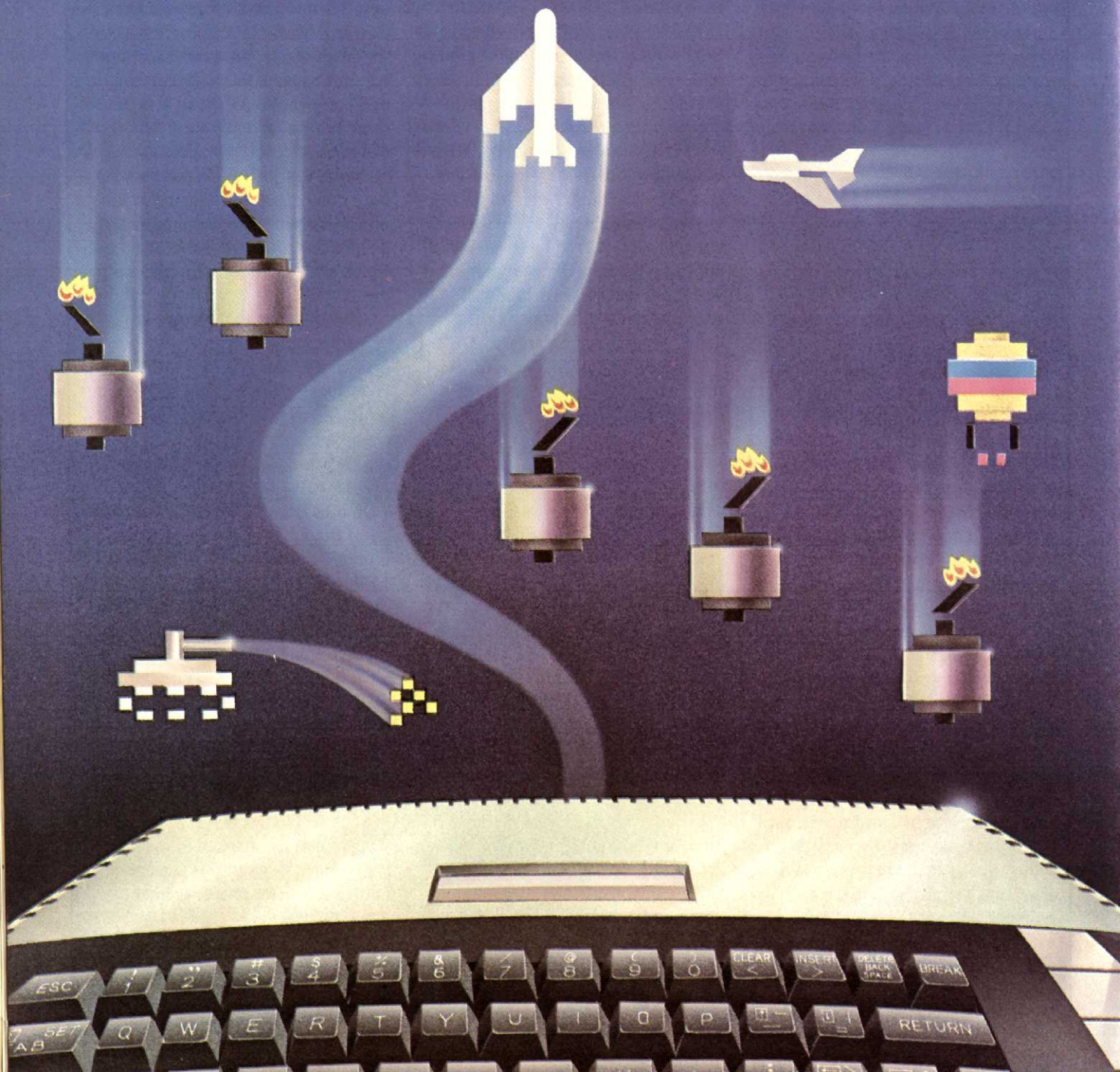
Besides the technical work that went into Bega's Battle, the complexity of the job is also evident in the number of people who re-worked it for the United States market. As part of the Media Works team, software programmer Mark Wright re-wrote the script, actor Ben Thun played the parts of Bega and Joe while actress Sheila Lichirie played Luna.

Lichirie's voice was also processed in the sound studio for the part of the evil Vargah.

One line Lichirie got to deliver as Vargah will haunt players throughout the game as the attempt to save the earth. Even though the soundtrack and visuals offer encouragement along the way it also offers one warning: "Beware. The power of Vargah lives."

—Mary Claire Blakeman

THEY'RE HERE.



River Raid™ and Kaboom!® are here. And your Atari® home computer just became more fun than ever.

Because River Raid and Kaboom! have been re-designed to take full advantage of home computer capabilities.

Far beyond anything you've ever experienced before in video games.

Unique graphics, crisp detail and brilliant sound all come together with spectacular impact.

River Raid,™ the battle adventure up the "River of No Return."

The realism of Carol Shaw's River Raid is utterly amazing.

It challenges your reflexes, stamina and strategic savvy as you battle your way up the winding river.

Enemy choppers. Jets. Tanks. Hot-air balloons. Ships. All out to blow you to smithereens.

But you strike back.

Keeping one eye on the ever-changing terrain.

Bridges. Mountains. Canyon walls. Islands.

One false move and it's curtains.

And if you're up to it, now you can skip easier sections of the river and get right to the heart of the battle.

Everything that made River Raid such a smashing hit is here. And tons more.

Kaboom!®, the award-winning game of catch with buckets and bombs.

Larry Kaplan's Mad Bomber is back. The buckets are back.

But now, in Paul Willson's adaptation, you can drop the bombs, while someone else tries to catch them.

Imagine dropping bombs. Faster and faster.

To the ever-quickening pace of the 1812 Overture.

You shift right. Left. Back again. All the way right.

He misses! You win!

Now it's your turn to catch. The pressure mounts.

The bombs start flying. You dash to catch them.

And so it goes on into the night.

And everytime you hit a new high score, it's displayed after the game, just like at the arcade.

Kaboom! and River Raid for your Atari home computer.

They're here.

Just for the fun of it.

ACTIVISION®

Activision is a registered trademark of Activision, Inc.
Atari is a registered trademark of Atari, Inc.
© 1983 Activision, Inc.

THE RACER'S EDGE

Taito's Laser Grand Prix

By Jim Gorzelany

Without question, Atari's Pole Position has, up until now, been the reigning champ of the coin-op driving game circuit. However, coming up fast on the outside is Laser Grand Prix, an interactive laserdisc racing game from Taito, that just might be able to out-position the competition.

In Laser Grand Prix, players control a speedy formula-one racer, barreling around the turns of Japan's famed Fuji Speedway. Yes, it's the same track that's featured in Pole Position. However, this time, rather than race over a computer-graphics version of the race course, you get a chance to test your driving skills on

the real thing. Laserdisc-generated film footage of the actual Fuji Speedway provides the background for this realistic racing encounter.

Both sit-down and upright versions of Laser Grand Prix feature full race car controls including wheel, stickshift, accelerator, and brakes. As in Pole Position and Turbo, your on-screen perspective is from directly behind your auto. The disc-controlled film footage reacts precisely to your acceleration and deceleration. Steering is, as in real life, more responsive at high speeds (surprisingly so, at first) than it is at reduced speeds. Your car, as well as the other autos on the course are represented by computer-generated graphics. The race course, as well as some blood-curdling crash effects (skidding, broken glass, and so on) are filmed laserdisc scenes.

After leaving the attract mode, you first participate in a high-speed drag race

In Laser Grand Prix players control a speedy Formula One racer while barrelling around the turns of Japan's famed Fuji Speedway.

down the long Fuji straightaway. Aside from providing an exciting visual effect, this serves to give you the "feel" of your racing machine for the real competition to come. Once this competition is completed, you must attempt a qualifying lap around the course.

Unlike Pole Position, this initial lap takes place without other cars on the

track. The object here is to finish the lap in as quick a time as possible. The faster your time, the better your starting position at the beginning of the next phase of the game, the race itself. Generally, unless you drive carelessly and careen off from one embankment to the other, or putter around at the slowest speed possible, you should have no trouble qualifying for the race. Here, only your

(dare we say it?) pole position is at stake.

After qualifying for the race and being assigned a position, the main contest begins. Naturally, you must drive fast and safe, staying on the road and avoiding crashes at all times. If you complete the lap in less than the time assigned by the machine (this is an operator-variable time limit), you get to race in yet-another lap around the speedway. This time, however, the other cars on the track will be more plentiful as well as aggressive in terms of cutting you off and otherwise

creating a hinderance. You continue to race for as long as you can beat the assigned time limit. With each new lap, the race gets increasingly tougher and a top-notch coin-op driver can expect a maximum of about six laps for a 50 cent game.

Taito has set out to make the most realistic driving game possible through laserdisc technology. For example, in the sit-down rendition, the video effects are enhanced by four-channel stereo sound effects. You'll actually hear the other cars on the road pass you from back to front on either your right- or left-hand side, just as you would on a real race course. However, although the sound effects in the attract mode are taken from an actual auto race, the effects for the remainder of the game (due to technical limitations) are computer-generated.

The bottom line? Although Taito hasn't strayed far from Pole Position's general concept (some might say, copying it too closely), Laser Grand Prix achieves an element of realism that Atari's high resolution computer effects only approximate. Will Laser Grand Prix challenge Pole Position's #1 ranking? Certainly. Will it topple the champion from its throne? It's too early in the race to tell, but one thing for certain is that the new technology is showing just how *real* coin-op play can be for the future.

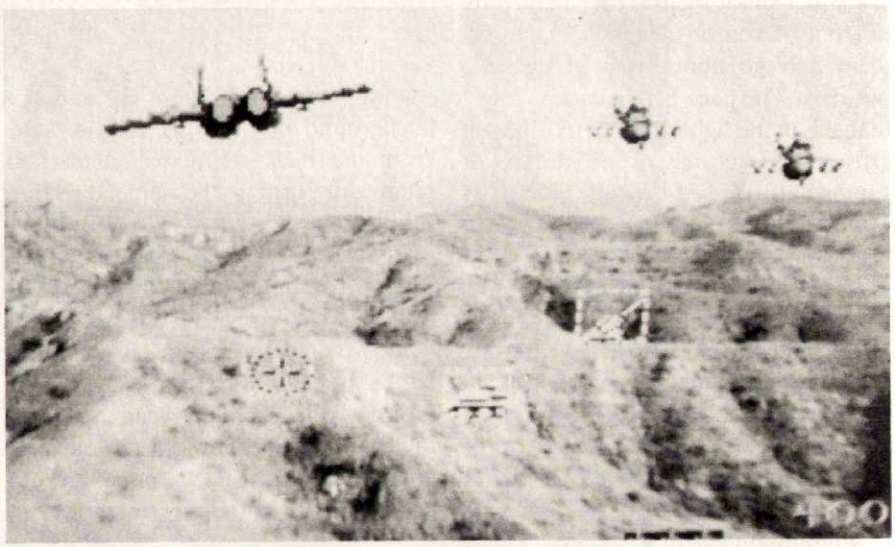
AIRBORNE ADVENTURE

Gottlieb/Mylstar's M.A.C.H. 3

By Jim Gorzelany

Mylstar (formerly Gottlieb, of pinball and Q*bert fame) has entered the flashy new mega-tech world of laserdisc video games with M.A.C.H. 3, an air combat game that, unfortunately, ends up as being more flicker than flash.

M.A.C.H. 3 is a sit-down coin-op machine that puts you behind the stick of a supersonic jet, flying one of two completely-different, player selectable combat missions. Throughout each your jet soars over various assortments of real-life (not merely *realistic*) terrain, thanks to some well-filmed laserdisc-controlled footage. In either mission, the object is to attack both ground and airborne targets for points while, at the same time, preserving each of your three lives. Some of the ground targets are filmed as part of the laserdisc footage; however, most targets, as well as the remainder of the game's elements (aircraft, missiles, explosions, and so on) are represented by computer-generated graphics. These are superimposed over the background footage and the result is that there is little in the way of interaction with the laserdisc scenes.



Whichever mission you select all movement is controlled by a single "Tron-style" joystick, which incorporates buttons for firing missiles and dropping bombs. A trigger, meanwhile, fires your anti-aircraft machine guns. Mounted over the front of the video screen itself is a large magnifying lens similar to the types sold for home television use. However, where the in-home types usually only blur and distort the picture, the magnifying lens in M.A.C.H. 3 adds to the overall visual effect of the game. By slightly curving out and blurring at the extreme ends of the screen, the lens gives the player a sense of peripheral vision with regard to the laserdisc footage (especially in the first mission when you zoom through tight mountain passes).

In the first and fastest of the two missions—the fighter game—you must fly at high speeds and low altitudes over an everchanging terrain. You'll fly over hills, valleys, and lakes, through mountain passes, and occasionally up into the clouds. You're provided with an unlimited supply of fuel and ammunition, with which you must destroy an equally-unlimited number of ground targets including missile silos, anti-aircraft cannons, and the like.

Occasionally, the ground targets, which are marked by computer-graphics crosshairs, fire back at you. Further, an array of enemy aircraft also appears from time-to-time to ruin your day. The backgrounds in the first game are especially well-done. You get a real feel for flying here, especially when zooming in on targets at low altitudes or through mountain passes. Also, the game starts out at an easy level, which gives you the opportunity to sit back for a few seconds and enjoy the scenery before the real battle begins.

The second mission—the bomber game—is slower and not as engrossing as the first. This time, you fly at high

altitudes and slow speeds over a rather bland-looking desert landscape. Again, you must destroy a number of ground targets by dropping an unlimited number of bombs on them. These targets are also marked by computer crosshairs, but in this mission more targets (ammo dumps, munitions plants, and so forth) appear as part of the laserdisc film footage, which adds a realistic touch.

Actually, the bomber game is as much of an *avoidance* game as it is a combat game. Periodically, the ground targets will fire bombs back up at you that will explode into deadly flak. And, even getting dangerously close to the flak explosions will obliterate your bomber. Further, you must deal with enemy aircraft (that, distractingly look just like your own) which occasionally enter the screen.

These planes don't attack as much as they just drift into your air space. You can either shoot them if they're directly in front of you or otherwise just avoid them and go about your destructive business. The pace here is much slower than it is in the fighter game. Its ultimate effect more closely approximates a somewhat dressed-down version of Mattel's B-52 Bomber Intellivision game.

In general, the two games look and play well, if not engrossingly so. The problem here is that, while the laserdisc filmed backgrounds are nice to look at, they rarely come into play other than as decoration (the exception here is in the fighter game where you can, if you're especially careless, crash into the ground or a mountain ledge).

All of the game play takes place through computer graphics. In fact, you could still play this game if the videodisc components either short-circuited or somehow began showing old Gene Kelly movies. As either mission progresses, and the screen fills up with aircraft, explosions, target markers, and other graphics, you neither see nor pay much attention to the backgrounds. At this point it becomes just a higher-priced shoot'em-up game.

Furthermore, you're unable to command your own destiny with regard to piloting your jet. You cannot fly off of the screen area (thus, you could not escape a battle by flying up into the clouds), nor can you turn your ship and fly back in the direction from whence you came. Early on, in the fighter game

it may *seem* as if your jet and the background are moving as one—aircraft and background will appear to pitch and turn in the same direction simultaneously—but it's just an illusion.

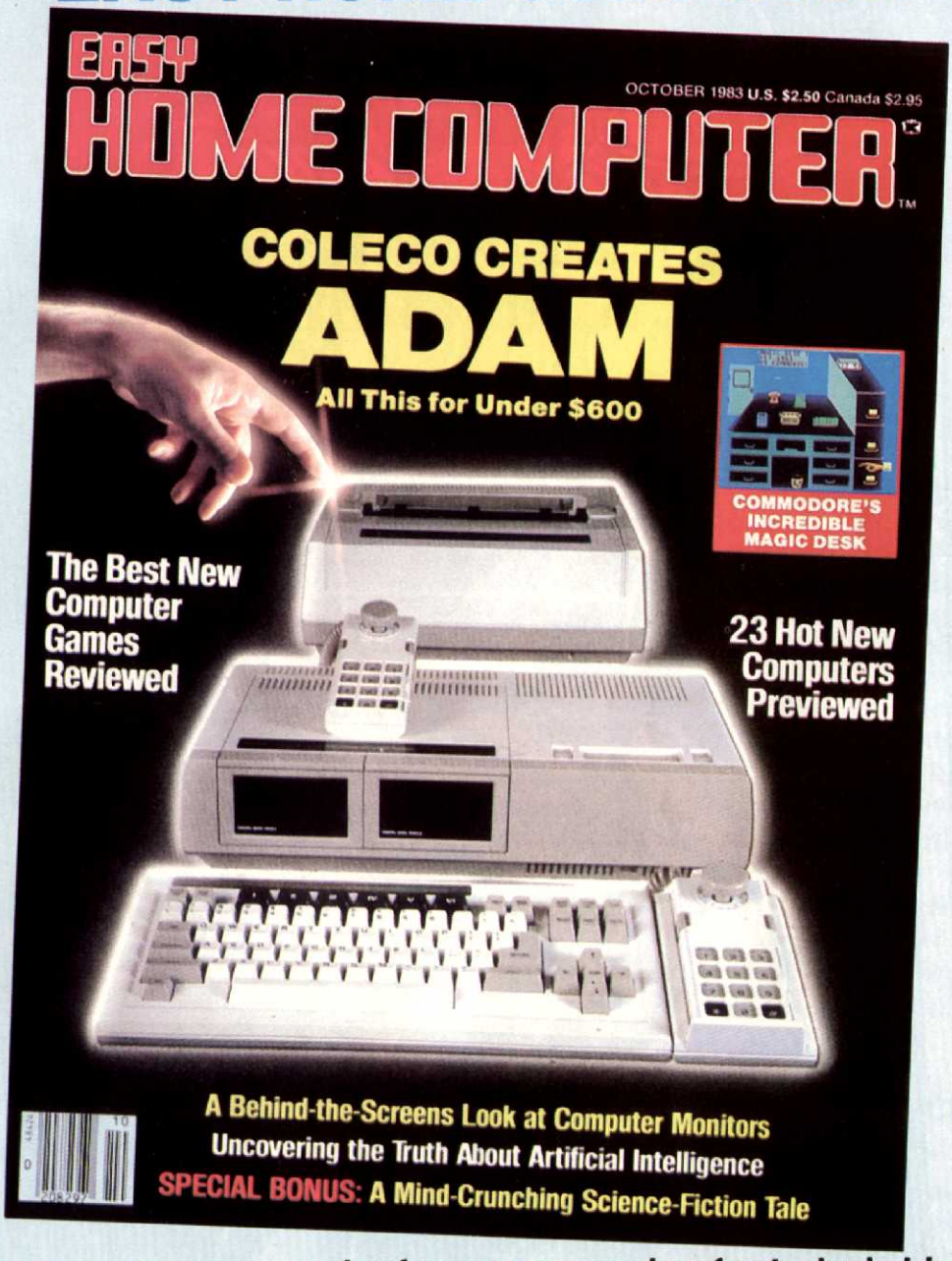
The clever Mylstar engineers have located computer target markers near one edge or another of the screen just before the laserdisc film background banks in that direction. Since your reflexes will probably lead your jet toward the targets, it will appear as if your plane and the background are both banking in the same direction. However, in this instance the background would still pitch off to one side regardless of whether you were flying off toward the other end of the screen or doing nothing at all. It's a nice try, however, at true interactivity.

One interesting aspect of the game, that could have been better exploited, was the use of background music and voice alerts. This, we have been informed, will be altered by the time the game is in full production by the end of the year. The music—sort of an "action/adventure theme"—should have been louder and a more integral part of the game play. Likewise with the voice alerts. Although they are crisp and clear, they're too often drowned out by the game's sound effects. Also, these alerts generally warn the player of targets and/or enemies that are large enough to react to without the warning.

One thing to watch out for in M.A.C.H. 3 is that the game never stops. There are no attack waves, boards, or screens to complete in either of the missions. The action continuously progresses at increasingly-higher levels of difficulty without giving you so much as a moment's respite. Death earns you no rest from this ruthless machine, either. When your jet either hits something or is blasted into video game oblivion, it immediately regenerates and the battle continues uninterrupted. This makes for a fast four bits unless you know your way around the game.

We played a pre-production model of M.A.C.H. 3 (under the name "Airmada") at a test site in a Suburban Chicago shopping mall. While the players were interested in the game—popping 50 cents into it here and there—they seemed to be more intent in feeding other, less-costly favorites such as Ms. Pac-Man, Centipede, and Pole Position. Nevertheless, M.A.C.H. 3 is a fun game to play. Given the state of modern technology, it could have been a better game, but it is entertaining nonetheless. Whether it is entertaining enough to attract a steady stream of hard-core players at a premium price remains to be seen, but it does stand as another step in the further development and application of laser technology. ▲

WE'RE GOING TO MAKE YOU FEEL RIGHT AT HOME WITH EASY HOME COMPUTER™



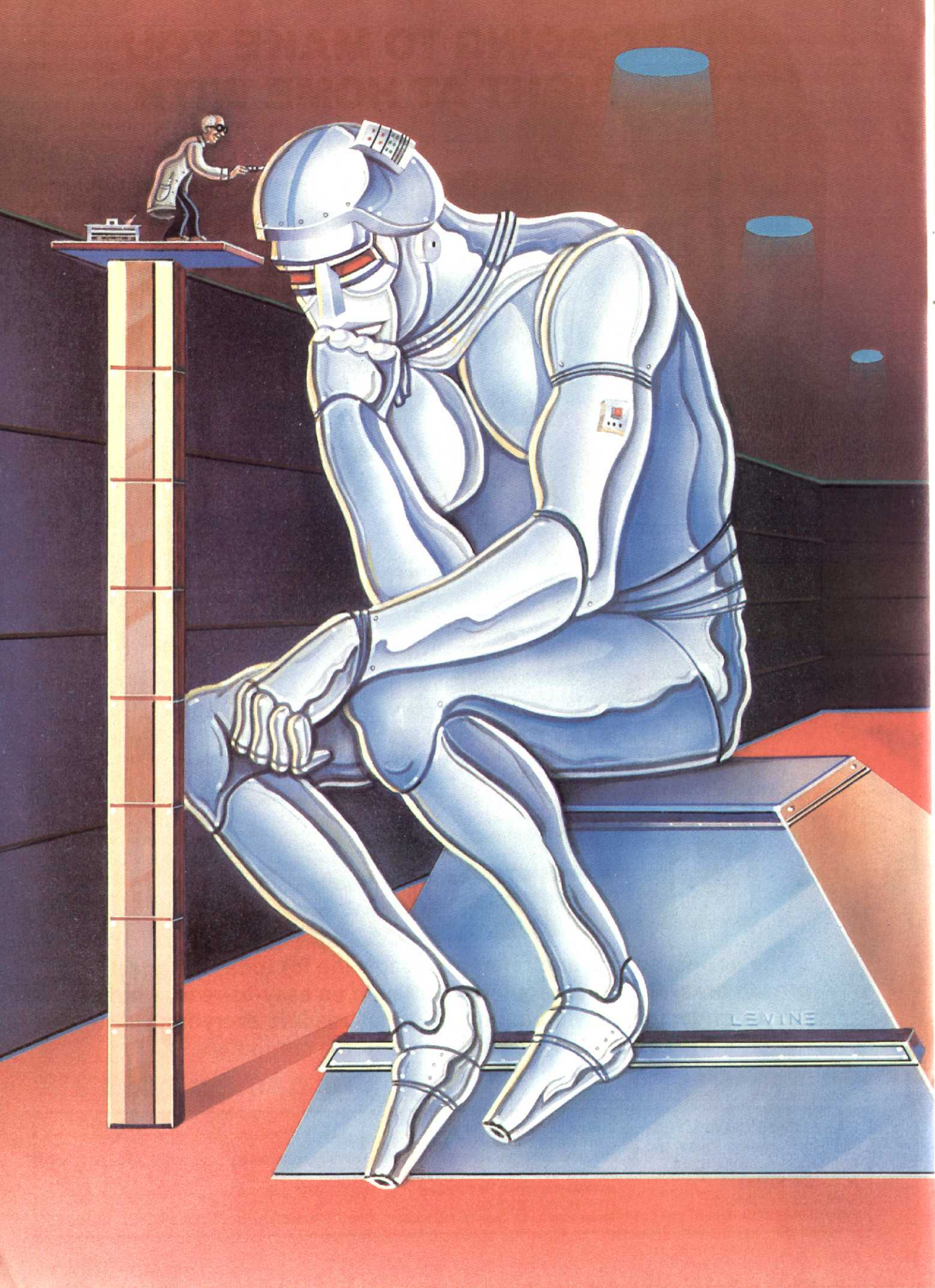
The newest source and reference magazine for today's biggest growth area—home computers. Written in an easy-to-read, simple-to-understand style guaranteed to tell readers everything they ever need to know about home computers.

EASY HOME COMPUTER™... our name says it all!

EASY HOME COMPUTER
Mail to: Pumpkin Press, Inc., 350 5th Ave., Suite 6204, N.Y., N.Y. 10118
Enter my subscription to EASY HOME COMPUTER

☐ Send me 12 issues for $22.50
☐ In Canada and Foreign: 12 issue for $43.00
(Make check or money order order payable to Pumpkin Press Inc.) (Full payment must accompany order. No C.O.D.'s)
☐ PAYMENT ENCLOSED
Please allow 6 to 8 weeks for first issue.

VG-2-3
NAME _____
ADDRESS _____
CITY _____
STATE _____ ZIP _____


LEVINE

SENSORY FEEDBACK

COMPUTER DEVELOPMENT LOOKS TOWARD TOUCH, SIGHT AND SOUND

By George Mazzei

My uncle has diabetes. His doctor, a very up-to-date fellow, persuaded him to buy a $500 home computer so he could measure his blood sugar levels several times a day.

The problem is that the computer doesn't work very well with mere humans. Its artificial intelligence requires that my aunt, who runs the machine, be very skillful and accurate with its calibrator. Since the sensitive device requires that the tests be run almost exactly the same way each time, my uncle can't get it to provide the information the doctor wants.

About ten years ago, I bought a Casio pocket calculator, the Biolator, which has a similar kind of artificial intelligence. Despite my devious efforts to feed it the wrong information, it does a passable job of balancing my checkbook. It's smarter than I am, since I can't add and subtract long rows of figures without making a mistake or two.

Sometimes I feed it crazy numbers to add and divide, just to see if I can get it to make me wait too long for an answer. It computes at lightning speed inside its 3 x 5-inch frame, cost less than $20 almost a decade ago and has needed only one battery replacement in that time. It tells me instantly when I've given it data that doesn't compute. Sometimes I feel as though it could tell me whether I should make a date for Saturday night, or just stay home with my nephew's Atari.

It's easy to imagine that the calculator has a thick bank of intelligence, intuition and emotion behind it. Because we've made processors that can compute words and numbers, we begin to identify with them and start to believe they can think. This process is called Artificial Intelligence, or AI.

Of course, nobody's made a machine that can think. We haven't even made a computer that's intelligent. After all, no intelligent being could take the boredom that's involved in doing the things a computer does. A computer must perform the same minute tasks over and over, and then wait for the next repetitive chore.

Few people working with computers consider the term Artificial Intelligence to be a valid one to describe what computers can do, or to outline what they may do in the future. Sophisticated Processing might be a better way to put it.

Before getting further into AI, let's be specific about what intelligence is in the first place. For computer purposes, two types of intelligence have been defined: Factual Knowledge and Heuristic Knowledge.

The first kind is the type you find in pocket calculators and in Ma Bell's mighty computer banks. It's of logic that the phone company's computer uses when it says you made a $300 phone call to Hong Kong last Christmas Day. You can't argue with it because the computer has no way of discussing the issue.

Heuristic Knowledge is the kind that you have, and ostensibly the kind that the person at the phone company has, too. It enables you to immediately remember that you made no such call, and then leads you to an emotional reaction that tells you to phone the operator and get it straightened out. Since this individual has Heuristic Knowledge as well, they'll discuss the problem with you reasonably, and figure out what's wrong with the computer.

Here are some basic comparisons we can make between Factual, or Computer-type, Knowledge, and Heuristic, or Organic, Knowledge:

FACTUAL INTELLIGENCE

- *Based on logic*
- *Needs a reason to "think"*
- *Can be programmed to create other "thinking" entities*
- *Goes from point-to-point to arrive at a solution, and arrives at a pre-programmed logical solution*
- *Has no reaction to thought processes*
- *Thinks only to process information, and only when incited to do so*

HEURISTIC INTELLIGENCE

- *Based on emotion*
- *Thinks with no reason*

Illustration by Andy Levine

- *Can deal with ridiculous and impractical concepts*
- *Can conceive of a machine that "thinks" more efficiently than itself*
- *Thinks in roundabout terms, as well as logical, can pursue "new" lines of thought, can tap into a subconscious and can experience gestalt-type mental breakthroughs*
- *Is exhilarated by mental processes*
- *Thinks all the time, in reaction to emotions, to problems and to physical stimuli and even in sleep*

You could probably come up with some comparisons of your own. One AI researcher has pointed out that computers could be made to follow logical steps and thus make decisions on their own. For example, he said, if a computer was designed to survey and control entrances and exits to buildings, and to protect them in emergencies, it could logically "figure out" that it must automatically lock all doors to prevent unfriendly forces from entering. Such a machine could "decide" to destroy itself, or another computer, to prevent theft of secret data.

But even this is not thought, as we know it. This is merely a matter of processing information and taking preprogrammed actions. A computer may have visual abilities and be able to make appropriate responses to what it "sees," but those responses must be first programmed in.

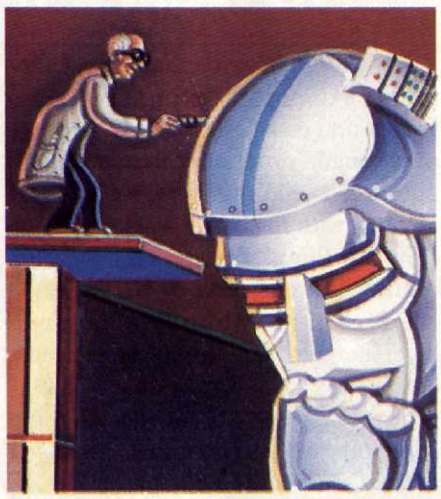
Many people get frightened when future possibilities of AI are brought up, but if computer public relations people talked about it in terms of sophisticated processing, no feathers would be ruffled.

People who have to explain computers must stay with the *1984* and *Star Wars* syndromes. Too many Orwellian tales shown on TV or in theaters have helped nourish fears that somehow computers may take over the government and enslave us. And thanks to C3PO and R2D2 or *Star Wars,* people have come to think that someday robots will evolve into emotion-filled beings. But there's no way to somehow graft our neuroses and sensations into machines. If we did, it would still be a matter of programming, not true emotion. But it's a credit to George Lucas that we all have this thought whenever we see a robot, whether it's working at an auto plant in Detroit or performing on a movie screen.

Doing It

Programming, of course, is at the core of the computer revolution. From an investor's view, that's where the big money is and will be, too. The big dream, for many, is to develop a software language that will enable people to talk to computers the way *Star Trek*'s Captain Kirk talks to his machine with the female voice.

There are problems here, though. Since we're on the brink of such a breakthrough, there's a tense rush to be the first to develop that language code that everyone will want.



You might ask why we haven't yet developed a word processor that can talk back to us. The problem lies in the way we think and the way the computer processes words. We deal with concepts expressed with words in an organic and rather sloppy way. The computer finds the correct responses by searching for the right reply among its microchips. It then relays the correct answer at high electronic speed to the video screen—and, with any luck, shortly to the loudspeaker as well. So, since the computer doesn't think like us, we must learn to talk like the computer.

When we talk among ourselves, we speak a language that is dependent upon mutual experiences, mutual emotional responses and on inflections. There are a number of other subliminal factors, such as body language, odors, and feelings of nervousness, apathy, etc. That's why computers of the future may come equipped with software which will take galvanic skin readings and measure blood pressure and perspiration levels to help determine the right answers to what a human will ask them. This will involve trillions of microchips that will have to be programmed and coordinated, though, so don't clear a space in your dining room for one of these computers yet.

In fact, we still have constant problems with computer breakdowns. Also, it's difficult to program in highly complex coordinative patterns. The computer still often gets "lost" whenever it must search through its complex system to find the right responses.

At the moment, the most favored way of processing data is to us an "if—then" system. For example, if your computer is working on auto design, then the programming might follow this kind of logic:

"If an object has a certain shape," the computer is told, having been "shown" the shape, "then it's a screwdriver. If it's a screwdriver then, it's used for twisting screws."

The only problem might come if the computer errs and tries to drive a nail with a screwdriver. Then it's time for the repairman.

People who have played chess with a computer are amazed by its ability to instantly make a countermove to a human move. It's not that the computer is brilliant, but the fact that the program moves at top speed through a short-distance collection of circuits to find the programmed countermove. The computer may be programmed here on the "if—when" code of logic. The machine must also run through *all* possible moves during its search, whereas a good chess player will quickly see the right move as his first reaction. But if this player had to watch the computer go through its search in slow-motion, or at human speed, he'd see just how stupid his opponent is.

So the reality of Artificial Intelligence is that the computer, rather than being intelligent, can simply go through a series of clumsy processes so fast that its performance is more efficient than a human's.

The potential of uses for computers

is unlimited. In Japan, where industrial robots *are* prominent, some kinky researchers are even trying to develop robot prostitutes from computers and corresponding software!

On a more practical level, computers are vitally needed to provide better access to the vast stores of information we've amassed, particularly in the last 40 years. The computer's quick speed can collate, find, present and compute instantly whatever is needed by researchers, students, business people, banks and so forth. Computer and software manufacturers are making great strides in improving efficiency, and are bringing costs down to personal home computer levels.

We are experiencing a changeover in our economy. Because of this, there is widespread unemployment as one type of economy dies, and another generates. This does not make the unemployed steelworker with five kids and a new house feel any better, but at least we can say that in this recession we are not dealing with a standstill, but a changeover. More and more jobs will open up. Younger people coming up will automatically look for jobs in the new areas, whereas their older brothers and sisters looked for jobs in the steel and auto industries. People laid off from these jobs can adapt to new areas.

Here are some key points to remember:

• *Creating new jobs:* Once a workable language is created that will enable people and computers to talk easily to each other, a whole new job market will open up. New software programs will be in demand as people find new uses for computers. We can compare it to automobiles. As more and more people had cars, new car needs arose: seats that adjusted automatically, air conditioning that worked off car batteries, convertible tops, safety features, better tires, and push-button windows.

As computers become more essential to the home new and competitive software products will be created and advertised. The industries that work around software in these areas will expand. Services related to software, new ways of input, not to mention trade-ins of hardware and replenishing out-of-date systems, will develop.

• *Quality control:* We may see a revival of quality products as computers proliferate. First of all, the hardware of computers is amazingly inexpensive; it's the software that's so costly. It will be easier to put together a high-quality machine at a low cost, especially since they can be computer-made without any union problems.

Because computers present the possibility of a future where unemployment can be eliminated, and where the educational and intelligence level of humans may rise, there will be a demand for quality products.

As for high quality items, such as custom suits, limos and such, where is the problem? Every business that wants to cater to high-priced needs can do so better via computer. Some software will enable "common" people to order from the grocery store, make deposits to the banks, etc. Others will tie in to more expensive software that caters to elite needs and desires.

• *Economic relief:* Because computers can minimize manpower in certain areas, such as government services, which will be less in demand, the national budget will become less complex and easier to balance. Since the private sector will handle the problems of employment and business, there will be less need for huge governmental overload and overhead. Political campaigns will be conducted via television; there will be an easier exchange between citizens and government, due to home computers being able to tie in to national banks, and even "face-to-face" interchanges between candidates and voters will be possible.

• *How about the problem of individuality?* Critics have suggested that services and products would not be able to be custom-tailored anymore if computers took over, and that people would lose their rights if the government could look into their homes. All of this can happen, and has happened, without computers; why should they bring about slavery? In fact, a computer-based society requires individual freedom as a base to grow. What totalitarian regime can provide the economic situation of generating millions of dollars of profits? You need a society of free people in order to generate needs for computers to serve.

• *Each age has its own needs:* During the Forties, a telephone was not considered a necessity for everyone. Now it's a utility. Today, not everyone has the need for a personal home computer; in fifteen years, everyone who now has a television will have one.

People wonder how we can switch from one economy to another without sacrificing some poeple. In fact, there are people who will feel the pinch, as some are now. In 1910, there were no auto workers and people wondered what would happen to all the horse and buggy people. This is where human emotion and help must come into being. There is work for everyone in the future. It is up to people in power to come up with programs to get us through the upheaval of change.

Where We Stand

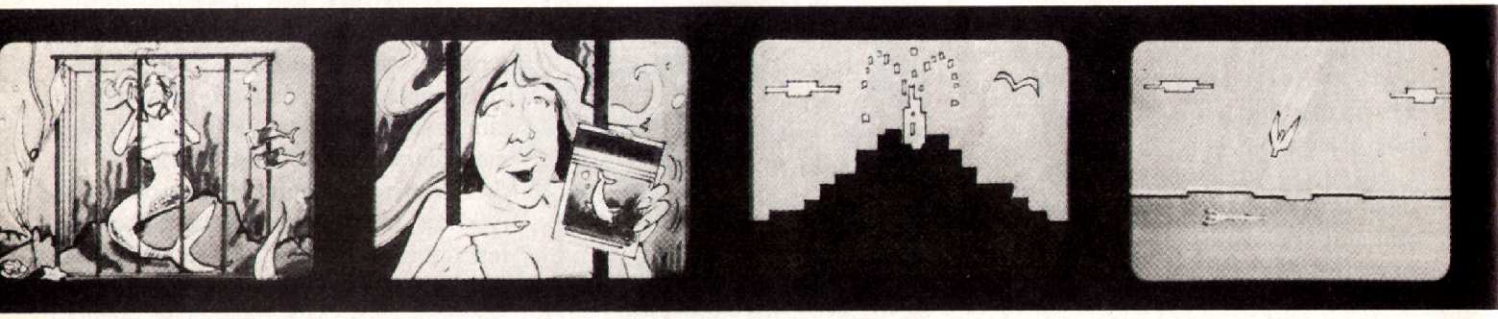
We have not mentioned the various types of software, such as LISP, that are enabling us to break down the language barrier between man and machine. The reasons for this is, first, that so much is being written on this type of software that it would seem repetitious to deal with it in passing. But the core of the new industry of computers is exactly that: developing the language to communicate easily in human terms with computers.

At the moment it's a puzzlement, precisely because we aren't quite sure of the process by which we think overselves. We do know how to lay in a program and circuits to get a computer to process information. We can even program a computer to create a program. What we haven't done is to circumvent the rigidity of the computer's methods of processing, so it can match up with the ambiguities of human speech. On the other hand, we have not been able to train humans to calmly deal with the maddening rigidities of speaking a language a computer can understand. It's like trying to talk to your grandfather's uncle who just came over from Czechoslovakia. He has a different way of running his thoughts through his brain.

But since your grandfather's uncle also has a brain that adapts, you know you'll eventually key in to his subtleties and communicate with him. As soon as they can do that with a computer, get ready to run. ▲

AN ACT OF CREATION

Rob Fulop Takes You Behind the Scenes of Home Game Design



Sometime in September of 1982 I sat down to start working on another game. I had finished Cosmic Ark in June and spent the summer on a project that wasn't quite right. After 3 months the decision was made to can the game which I had almost completed because it didn't have the right 'market appeal'. Many people at Imagic liked the game, but the same wasn't true with the kids in our focus group tests who played it and hated it.

Ultimately, these are the players—our target audience, mostly male, between the ages of 8 and 14—who determine how good a game is. I try to design games I think this group will like, although usually it's a matter of simply doing games that I like and hope others will like as well. It's really a matter of hit or miss and no matter how long you've been in the business, you can never be sure of what players will like. I guess that's one of my biggest 'tricks'.

I will work on a particular sound, or motion until I like it and then I'll get other people's opinions. Some will prefer a certain sound, for instance, and others will hate it. But, as a game designer, I have to make the final decision. It's fun and exciting to make these decisions, but designing a video game is an enormous amount of work, that can often be very satisfying and well worth the effort.

All the games that I've done basically begin with an 'effect' on the screen, which is simply something that looks interesting and catches the eye. It's very important that a game catches the eye so that people will look at it and play it. In fact, Demon Attack started with two shapes rushing together to create an object. I liked the way this effect looked and decided to build a game around it. Cosmic Ark started with a twinkling starfield.

My new game, I decided, would have something to do with sinking and descending into the water. I wanted to give the player a feeling that he was swimming down in the water. Initially, I really didn't know what the game would play like. That would come later.

I started with Bob's Riddle of the Sphinx game and started changing the display. First I made all desert objects seaweed. Then I changed the background to blue. I had decided on scuba diving as a theme and read many books, mostly fiction, to learn about the lore of the sea and buried treasure.

Deciding on the 'concept' of any game is totally different than picking a theme. The latter is usually easy since it's basically just the 'storyline'. You can get twenty themes from a movie like *Star Wars* or from Tolkien. Saturday morning cartoons are chock full of fun themes, especially the older ones.

On the other hand, game concepts are scarce. We have a generic title for most games that really describes many of the newer titles. It's 'Senseless Slaughter' and the concept is to simply shoot all moving objects! Everything moving on the screen is trying to kill you and you have to shoot everything. This was the concept of Demon Attack. I wanted to title the game Death from Above but our marketing department knew better and

gave it a more 'marketable' name.

Getting back to my new game, the theme, starting out, was an underwater treasure hunt, but the concept was very nebulous. I knew I wanted players to be able to do different things with the main character, find treasures and maybe dodge a few sea creatures. I wanted to stay away from shooting. There would be no spear guns in this game. 'Cute' was definitely in.

As far as the game 'concept,' I wanted players to get a real sense of exploration and adventure. Typically an adventure-style game means complexity and what I wanted was to create something that was easy to play right away. I had a feeling that a game could exist if it were basically a little movie, or cartoon, and you as a player could control the main characters. I wanted the final game to be fun to play, but ideally, that players could enjoy just moving the characters around the screen. When I decided on a theme (underwater hide-and-seek) and a concept (cartoon-like realism/adventure) I was ready for the next step—writing the code.

As is so typically the case when you're designing home games, I encountered a major problem right away. I wanted the main character to be a little scuba diver who carried around little air tanks, shovels and maps. But this is extremely difficult to draw, with all the detail, when you only have 8 bits. No matter how many versions the artists came up with, nothing ever came close to the image I had in my head. The point was to give the diver the ability to turn in all directions and swim realistically, but he just couldn't. Little men are always tough to draw. The little maps and air-tanks were always too big and he never looked like he was carrying them.

After 4 weeks of playing with this little scuba diver I was beginning to get annoyed. The marketing department had done research and asked a bunch of kids what they thought about scuba diving games and all responded that they thought it would be great. The problem was that those kids didn't know what I know now. It wasn't going to be enough fun to only move the scuba diver around. The real problem was the graphic limitations of the VCS. It honestly looks silly when a scuba diver is carrying a map as big as his whole body.

It was about this time that Michael, one of our artists, came up with a beautiful little dolphin as decoration but we hit on the idea of having it be the central character of the game. This gave us two advantages since a dolphin is easier and more graceful to draw as well as being slightly magical which lends itself very well to video games. Fantasy is much easier to work with since there are no expectations and characters can do anything we want. Michael also suggested the addition of a little mermaid which seemed to fit nicely into my new conception of the game. Somehow the dolphin would work with the mermaid to achieve a goal.

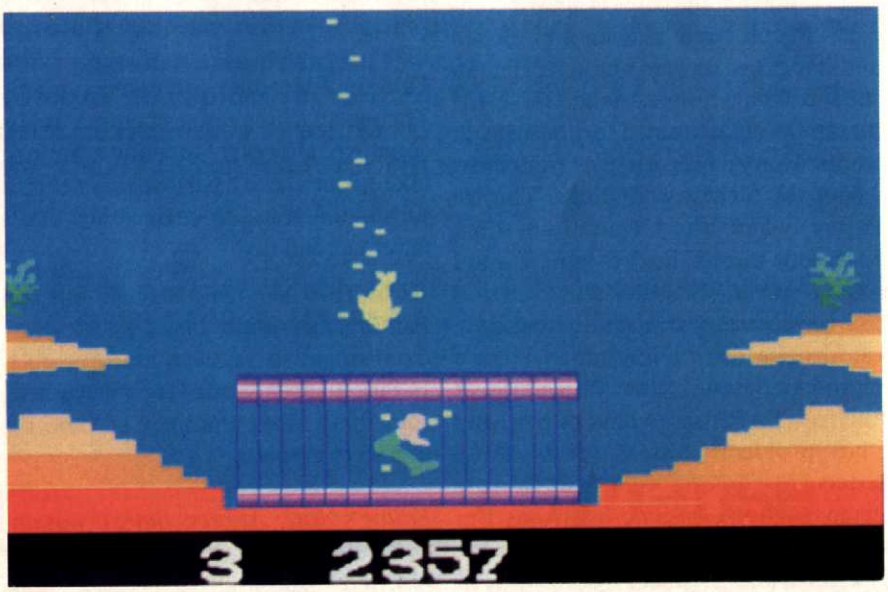
From this point I spent a couple of weeks getting the dolphin to swim around the seaweed and letting him jump out of the water. I also had the mermaid at the bottom swimming around the rocks and it was all very nice, but there was no game to the action. I tried different things such as having limited air to find the mermaid, using sonar to find treasures or using the mermaid to guide the dolphin through a maze. I even considered arming the dolphin with lazer bazookas and making a shoot'em-up.

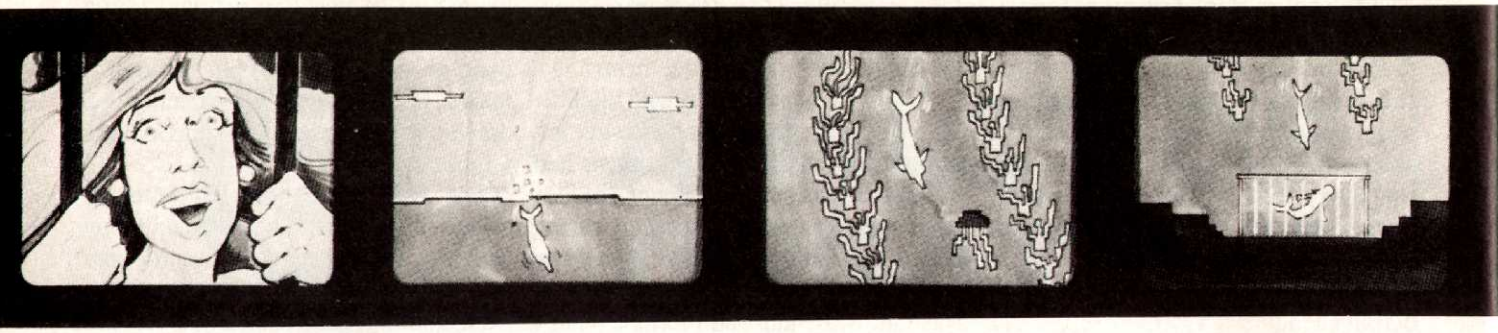
The real 'breakthrough' came, as always, by accident. I had been unhappy with the title screen because the sky seemed barren, so I put in a seagull to balance things off. The seagull was going to fly around and look graceful since I never intended to incorporate it into the game play. One afternoon, after having returned from a lunchtime visit to a nearby arcade, I had just finished making the seagull fly around. However, I had also played a lot of Joust that day and the idea of pushing a button to flap the wings really intrigued me.

I decided to move the seagull around the same way, just to see what would happen. Needless to say, I loved it and started searching for a tie-in between the seagull and the dolphin. My first thought was to have a two-player contest with one controlling the seagull, the other the dolphin. Everyone liked the idea, but what were these creatures trying to accomplish?

With the Summer CES only 4 weeks away, I had a tremendous amount of work left to do. All the elements were there—a dolphin that swims around, octopi, seahorses, a mermaid, a seagull, volcanoes, clouds and enemy birds. I started reading children's stories to get some idea for how to tie everything together. Approaches were tried and discarded, as I searched for the right answer. The willingness to discard something you've worked on and then start over is tough, but I truly believe it's what makes good video games. No one can really tell how much fun a new idea will be until it's tried.

Finally, with the help of some creative people in our advertising agency, we put the whole game together. The object would be to free the mermaid from a spell cast upon her by a wicked magician. To free the mermaid, players would have to find 3 pieces of a trident that are hidden somewhere in the game. The pieces could be anywhere—in the sky, on land, or in the water. Looking for the trident would force the player to explore all the screens and really understand the simply geography of this video game 'world.' The game would be adventure style, yet wave oriented so





that players would need to get through successive waves in order to achieve certain goals. Each wave would present the player with a larger 'world' in which to search for the trident.

Only three more weeks remained before CES.

Once the idea of a game is totally defined it's time for 'brute force.' There are always countless details to take care of. In this case, how to change from the seagull character into the dolphin? How to represent the trident pieces? How to make the game simple enough to learn, yet challenging enough to hold interest? How to keep score? What sound effects should occur and when?

There are also limitations to be concerned with. In terms of memory, 8K goes quickly and you have to cleverly trade off certain elements. Is it worthwhile to fully animate the octopi if doing so won't leave enough memory to have a two-player mode? These are difficult decisions to make. In the case of this game, the real limitation was becoming time. My working days kept getting longer and longer.

The next phase was consumer testing. Working in front of the game for 10 hours a day can make me, and probably any other designer, lose sight of how fun or interesting a game is to a newcomer. At Imagic we bring kids in to play, while we watch their reactions behind one way mirrors. This is an important practice because it allows us to learn things from watching new players, before the game is actually complete. Hopefully, at this stage, we can discover aspects of a game which might not be working and make necessary improvements or modifications before the game is released. In this case the kids didn't like the 'attract mode' of the game. They couldn't figure out what was going on and game play was too difficult past the first level. One day of testing was enough to see that there was still more work yet to do.

We had reached the point in development that I like to call the *90% factor.* All the interesting details are done; the concept is complete and graphics as well as sounds are usually finished. But the game, as a whole, is only 90% there. It's a point where I personally think too many designers just 'ship it' because they're tired of looking at it. However, it's also the point where a bad game can become good, or a good game can become great.

What's required is discipline and the ability to do what is necessary to complete the project. Little 'bugs' or errors invariably keep popping up as you try to scrunch the program and make it fit into the required memory space. This can really get annoying as was the case this time around. The mermaid swims through the rocks, the dolphin jumps the wrong way and the seagull disappears into the volcano at certain points. The result only reinforces the fact that computer programming is a humbling experience, since you're constantly being reminded that you've made mistakes. My guess is that I must make 100 errors during a typical day of debugging a game. But you just have to get used to it.

Slowly, the bugs disappear one by one and I sense that the game is almost complete. People begin playing it in the lab and some even seem to like it. We have a staff of 'bug testers,' who are game players specially trained to find bugs in games. Every day I get a sheet from them telling me their new findings. They're happy when they find something because it means they're doing a good job. However, what they don't know is that every bug means a possible catastrophe for me. What if I can't reproduce the bug? What if I can't find it and fix it? After seven days of receiving "No problems found" from these testers, it's time to 'ship it.' My new game, Fathom, is done, as far as I'm concerned.

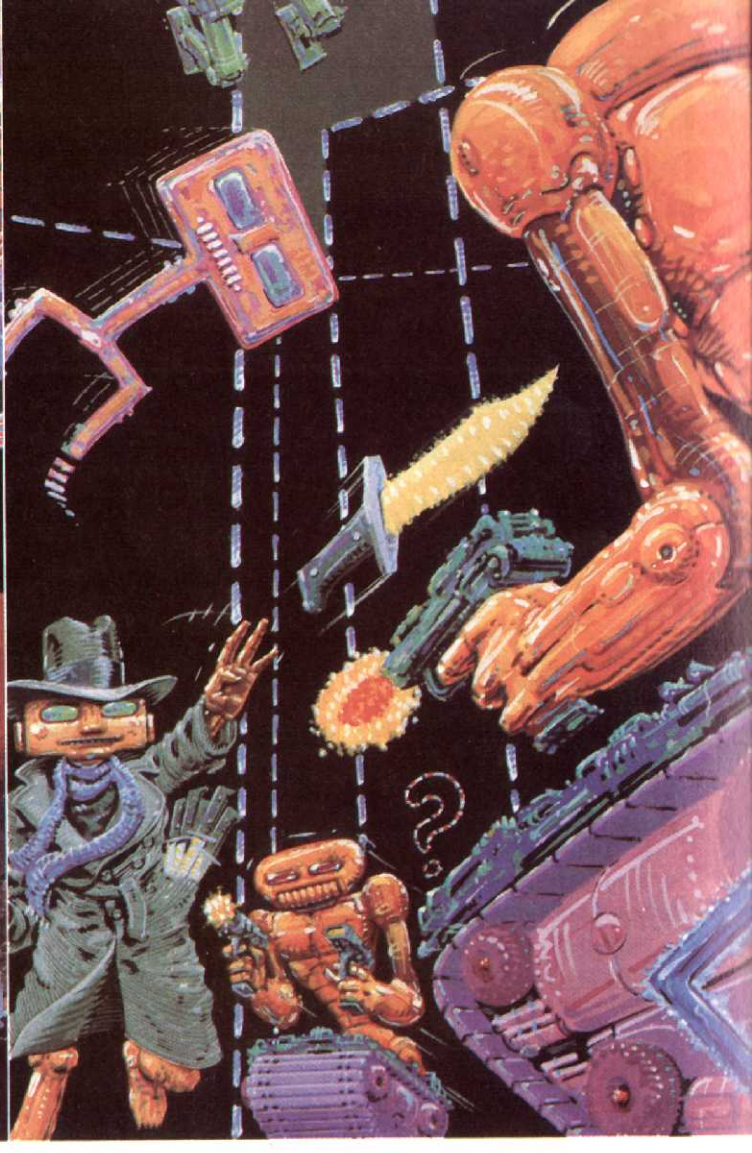
I get a tremendous sense of elation and anxiety when a new game is released. There may be praise from our sales and marketing people, but all game designers, myself included, take this feedback with a grain of salt. The real test, after all, is seeing if people play the game. When someone comes up to me and says, "Gee Rob, I really like Demon Attack," I usually say something like, "Thanks a lot, what's your best score?" The praise or affirmation that I've done a good job really only hits home when it comes from someone who actually plays the game I designed. It's the same with criticism, since it may come from people who don't even play the game or get into it.

I won't really know if Fathom is a success for at least three months, which will be well after it's been released to the public. So I have to be content to wait and see if I've accomplished what I set out to do and if players respond to the game play.

Fathom is now in the hands of our marketing department and what they do with it is another story altogether. Packages have to be designed, manuals written, print ads, TV commercials, promotions, package copy, counter cards, spinners, buttons, slogans and all the rest must be created. Meanwhile, five other designers have started doing Fathom for other computer systems. Their job is a little easier since the game is complete. However, adapting a game to take advantage of a particular system is a substantial test for engineering that's never cut and dry.

As for me, I'm burned-out on Fathom and want to get as far away from seagulls and dolphins as possible. In fact, I have this idea for a new game, something along the lines of shooting monsters in space.

Editor's Note: At press time, it was announced Rob Fulop was no longer associated with Imagic. ▲



AT LAST!
3-D scrolling action for the Commodore 64®

Sentinel™ brings a new dimension to Commodore 64® games. From the cockpit of your starship your instruments signal the approach of life forms. You shudder in horror as the data describes a legendary terror. The Gorganitor approaches! Are you ready for this meeting?

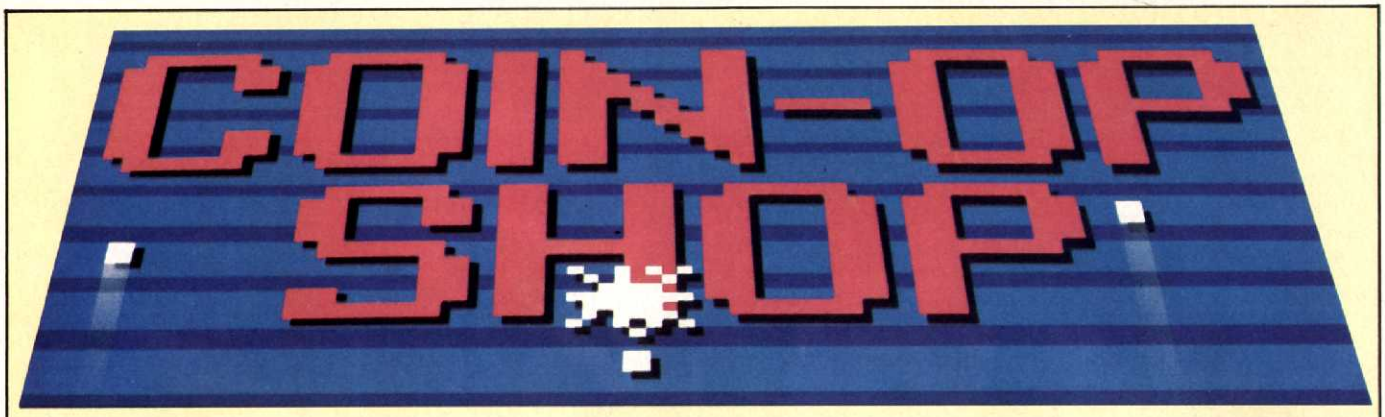
THE WAIT IS OVER!
Shamus™ is here for the Commodore 64®

The odor tells you the Shadow's there—in one of four levels of 32 rooms, each bristling with danger. You know it won't be a high school prom but there's no turning back! Arcade adventure more intense than the original with three new, never before seen maps. Videogame Player Magazine's game of the year!

Both games available at software dealers everywhere. Or order direct from Synapse Elite. Only $34.95 plus $2 shipping and handling (California residents add 6½% sales tax). Send check, money order or your Visa/Mastercard number.

synapse
SOFTWARE

5221 Central Avenue, Richmond, CA 94804 • (415) 527-7751



New Game Themes And Developing Trends

By John Holmstrom

Thanks largely to the success of Dragon's Lair and Star Wars, the arcades are showing signs of life again. The slump which had been so well documented the past year or so, has finally given way to a noticeable feeling of optimism. Admittedly, although the interest and activity hardly match the hysteria of a few years ago, enough people are back playing and the industry is breathing a little easier as a result. Much of the increased attention has been due to a more diverse array of coin-up attractions. And casual, as well as hard-core players are discovering that new challenges await.

Probably the best development to emerge from the slowdown last year has been in game themes. No longer are we seeing dozens of Pac-Man maze game variations, or Donkey Kong inspired imitations. Instead many of the new games are offering something unexpected as designers seem to have greater leeway to take chances. It's obvious that the manufacturers are learning that today's players aren't satisfied with knock-offs of old hits. Hopefully this trend will be further reinforced at the annual AMOA convention in New Orleans at the end of October.

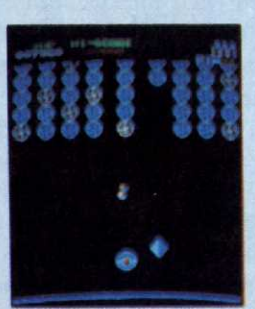
Games such as Elevator Action and Cluster Buster aren't based on recent success stories and from the current crop of games, tend to stand apart from the crowd. Dragon's Lair, meanwhile, has proven its appeal as something more than a novelty and ushers in a new era where almost anything is possible if it can be coin operated. It's time for all of us to let our imaginations soar since design and programming barriers are rapidly fading away. For coin-op players the forecast looks to be getting better and better as the evolution and further development of arcade games continues.

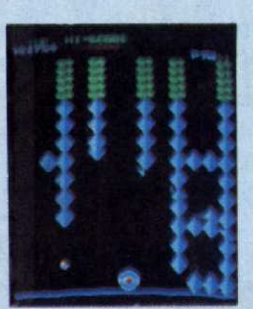
Data East's

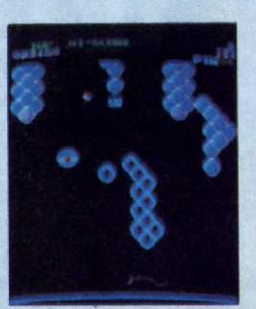
CLUSTER BUSTER

While trying to champion an innovative conversion kit system, Data East has enjoyed a fair amount of success by licensing out such recent efforts as BurgerTime and Bump 'N Jump. Although gearing up for the release of their laserdisc game, the company hasn't been idle when it comes to more conventional video. Cluster Buster owes a great deal to that old classic—Breakout—but, fortunately, incorporates a few elements from more modern games including crisp graphics and unusual as well as tempting scoring possibilities.

The controls are simple. There's a small, omni-directional joystick on the left and an "up" button on the right. Above this is an "angle change" button. The joystick controls a "bouncer" ball which then controls a smaller ball by bouncing it up to the top of the screen. The smaller ball knocks pieces off of giant geometric formations at the top. At the bottom of the screen are three layers of bricks, which keep the smaller ball from disappearing off the screen, although these bricks will disappear each







time the smaller ball hits one.

The "up" button moves the objects at the top of the screen further up, so they can't hit the bouncer ball, which would cost you one life. The "angle change" button directs the smaller ball to a different angle of movement, similar to slapping the ball with the paddle in Breakout, although the action this time is up and down rather than sideways. Unlike Breakout, however, the objects above are clustered together in formations. If you can hit a key "grape," as they're called, the whole formation will fall down, and you'll receive increased bonus points.

In terms of game play, if you can hit the smaller ball with the bouncer 17 times in a row, without missing, you'll earn a bonus of 2001 points and a little man will travel across the bottom of the screen putting down a new layer of bricks. You can gain a free bouncer by hitting "Mr. Grapo," who is occasionally stuck in one of the formations above. If you knock down the formation he's in, however, you miss out.

In addition to all of that, spiders drop from the clusters above, like the fleas in Centipede. If the smaller ball hits one, you gain 500 points and an extra "up" button. You get only three at the beginning of the game. You'll lose a life if a spider hits the bouncer ball. The grapes are worth 10 points apiece, and core grapes, colored red, are worth 100.

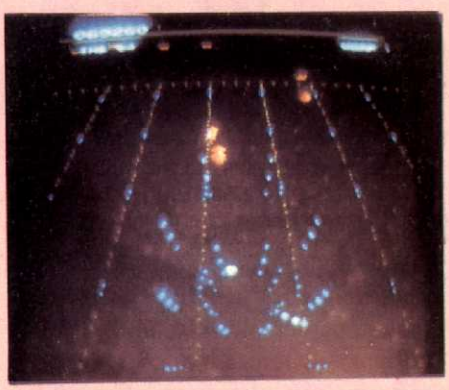
The skills in Cluster Buster are identical to those in the original Breakout. There's more leverage here, since the bouncer can be moved all over the screen, not just back and forth. Good hitting is still the most important thing. Each new level of clusters present different challenges that require new strategies.

The top of the screen contains relevant data, such as how many "ups" are left, the score, what pattern you're on, and how many bouncers are left. The most challenging and rewarding situation is trapping the ball by hitting it at the top of the screen and pushing the "up" button to trap the patterns.

Cluster Buster is an excellent game. The graphics are colorful, the sound effects are good, and the game play is involving. The pace is fair, the controls responsive, and the difficulty levels engaging. It's not for everyone, but it could very well develop a devoted following, if it's given half a chance.

Gottlieb/Mylstar's

After developing Q*bert and Mad Planets in-house, Gottlieb/Mylstar has gone outside to license this effort from Konami. Originally introduced back at the AOE in the spring, Juno First is a Space Invaders-style game that's a real challenge for shooting fans. Reminiscent of Radarscope or a vertical Defender, it's an abstract space game in the old "paranoid" school of design where everything's out to get you, so shoot them before they can shoot you.



A joystick flanked by two buttons, for warping and firing, controls the spaceship. The action can be as fast or slow as the player wants, since the stick will also control your speed and movement. The enemy ships are worth 150, 300, and 500 points, in addition to a mystery bonus. When you shoot a space capsule, you can capture enemy astronauts for bonus points, while destroying all the aliens in a round before the time runs out, also scores extra points. Any surviving aliens will turn

into UFOs, which makes them more powerful and deadly.

The aliens descend in waves from the top of the screen. By moving your spaceship up or down the grid that forms the battle arena, you can control how many aliens to attack, and how many will be attacking you. As the game goes on, the waves of enemy ships become increasingly more difficult to destroy.

The graphics are simple, but effective. Since so many games have started to follow the cluttered look, Juno First is a pleasant change of pace. Once you play it for a while, you'll find that the bright colors of the enemy ships, contrasted against the inky black background, effectively enhance the game play. The explosions of the enemy ships are quick bursts of color and the growling sound effects only add to the game's theme.

The problem with Juno First is that the play action is so dated. The challenge of shooting targets at the top of the screen has been done to death. The game does offer the added ingredient of infinite space and unlimited movement backwards as well as forwards, but something is missing. A round featuring a new setting, left to right instead of up and down, or different game play, where you might have to smash into the enemy ships instead of shooting and avoiding them, would have been a welcome break from the relentlessly familiar setting and situation employed here.

Juno First doesn't offer any innovations. What you see is what you get. For players tired of the sci-fi shoot'em-ups, it will seem like more of the same. Those who still enjoy the unique challenge of kill-everything-that-moves outer space paranoia, will find Juno First to be a welcome addition to their inventory of favorites.

Data East's

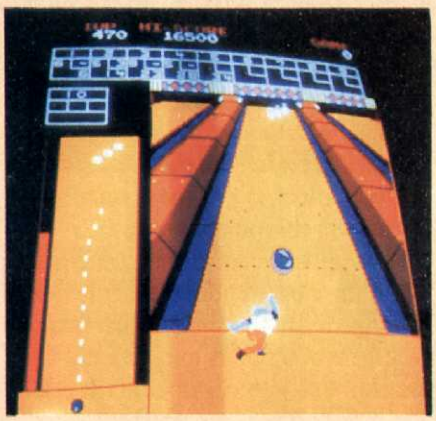
PRO BOWLING

Given the success of Sega's Champion Baseball, it shouldn't come as any surprise that other manufacturers might want to try their luck with other sport-themed video games. Except for some home cart creations, bowling hasn't been tried for a number of years, but Data East is hoping to strike it rich with their effort.

Pro Bowling features a four-way joystick and a shoot button. The stick moves the bowler to the left or right side of the lane for position, while moving it up or down determines the ball's trajectory. Move it up to hook the ball or down to slice it. The red "shoot" button releases the ball, and the bowler throws it down the lane. A timing meter at the bottom left hand side of the screen indicates whether the ball will be thrown slow or fast.

The screen is divided into three parts with the top showing the score in frames, and in Pro Bowling's own scoring system. The right side screen shows a realistic picture of a bowler in the alley as seen from behind. The left shows the "scope meter course"—a miniature depiction of the bowling lane as seen from above, the position of the bowler, and the course of the ball. To the far left is the timing meter.

Before you throw the ball, you must set its trajectory with the joystick. Just as



in real life, you cannot alter the ball's direction after it's thrown. The timing meter moves up and down quickly, and when it turns red, the ball will be thrown automatically whether you're ready or not. You get 5 frames per game, and a bonus frame for each strike, and every three spares. You can also win another frame for reaching a point value, which should vary from one machine to another. The scoring is based on a regular bowling game, only it's predictably higher. For instance, a strike is worth 500 points, a spare 200 points, and so on.

It's too bad that you're only given five frames in a game. That's a minimum of ten shots per game, which isn't very generous for a quarter. In addition, there's not enough time to set up shots, since only a few seconds elapse before the timing bar runs out and the ball is thrown automatically.

To make matters worse, the controls aren't flexible enough. When you move the joystick up, the trajectory curves sharply. When you push it halfway down, it straightens into a line. There's no in-between. You can't curve it halfway, at a 45-degree angle or utilize any other subtle touch.

For my money the old-fashioned bowling machines are a better deal. They offer different types of scoring, unlimited time for setting up shots, a full game and also give the player some of the physical action that real bowling provides.

Pro Bowling is barely better than a home video bowling cartridge. It offers little of the real challenge of the sport and instead provides too much frustration. It does look good, but looks aren't everything.

THE OFFICIAL VIDEO GAMES™ CAP

Don't Leave Home Without It

ONLY
$5.95 each
2 for
$10.00

VGH-12

TO: VIDEO GAMES
Pumpkin Press, Inc.,
350 Fifth Ave., Suite 6204
New York, N.Y. 10118

☐ ONLY $5.95 each!
☐ Or save $2.00: 2 for $10.00,
(plus $1.00 postage and handling charge for each hat)
New York State residents please add sales tax.

Name _____

Address _____ Apt. #_____

City _____ State _____ Zip _____

Quantity _____ x $_____ =$_____ (Amount enclosed)

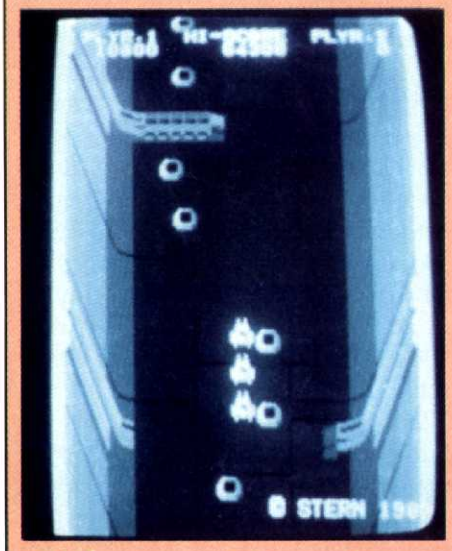
Send check or money order. Allow 4 to 6 weeks for delivery.

Stern's

STARJACKER

DARE THE GALACTIC GAUNTLET

Here is a company which has experienced its ups and downs in recent years, trying a combination of game design approaches which have included some licensed efforts, conversion kits and even a novelty attraction such as Mazer Blaser at the beginning of the year. Stern has had its share of exciting games such as Rescue and Minefield, but the big news as Video Games goes to press is the announcement that this manufacturer will be joining the ranks of laserdisc companies with their first called Cliff Hanger.



With some similarities to Xevious, Zaxxon and Tac-Scan, this latest effort from Stern offers some interesting action. Starjacker's setting is outer space, where your spaceships "Dare the Galactic Gauntlet." Enemy aliens throw everything at you but the kitchen sink. The twist to this game is that although you get three ships at the beginning of the game, you have to use them all at the same time.

The controls are an eight-way joystick with a fire and bomb button on either side. The game begins with your trio of spaceships taking off into space from a cosmic aireraft carrier. Soon the action has you flying over a gigantic super spaceship that houses the "Galactic Gauntlet." Waves of geometric-shaped alien vehicles fly around in gyrating formations or descend from the top of the screen.

There are also many ground targets to aim for. The bomb button destroys these from close range, while the fire button wipes out the air vehicles. The bomb button can also dissipate enemy fire. If you can dodge the enemy fire, including gun turrets mounted along the sides, and avoid the towers that rise from the Gauntlet's surface, you'll eventually pass the super spaceship and dock with the carrier, receiving a 1,000 point bonus for each ship that's still left, before moving on to the next round. After the second round is passed, you're awarded a free ship, but it's carried piggyback just like the others.

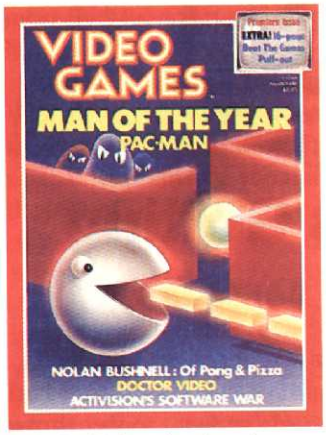
The later rounds break up into different patterns with more battles in outer space and shorter rides through the Gauntlet. Larger spaceships appear that release the smaller vehicles, and other alien shapes burst into deadly debris when blown up.

The pace of Starjacker is much faster than its inspiration, Xevious, and it also features very colorful graphics. The firing and bombing of your ship has a narrow range, so you must be accurate in shooting to hit targets. There's no scoring table for the different targets, so it's best to shoot anything that might get in the way of your ships, and stay alive as long as you can.

The only problem with the game is the three-ships-at-once gimmick. Although you get a little more firepower when the three are linked together, they're just too large to keep from getting blown up early in the game. The enemy formations and firing are designed for a one ship game. It's not a fair contest until you're down to your last ship—and then you're down to your last ship!

As far as science fiction shoot'em-ups go, Starjacker's not bad. It's fast, there's a lot of variety in enemy ships and targets, and it's fun to play...once you're down to your last ship.

GET BACK TO THE BASICS— Order Your Missing VGs Now!



AUGUST '82-Premiere issue!
Interview: Nolan Bushnell; Pac-Man; Activision; Home Computers; Reviews: Atari VCS, Odyssey²; Beating Coin-Ops

OCTOBER '82
Interview: Tim Skelly; Coleco; *Tron* Reviews; Intellivision, Astrocade, Dig Dug, Zaxxon; TV-game guide

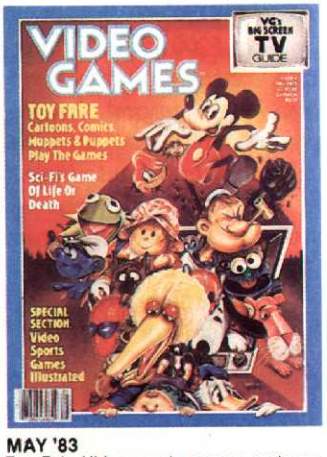
DECEMBER '82
Ken Uston; Plimpton; Mattel; Bally/Midway; Atari; game programming; Atlantis; Pitfall; Caveman; Arcadia

JANUARY '83
Bill Grubb, Dennis Koble; Donkey Kong; ColecoVision; Vectrex; DK Jr.; Q*bert; tip books; gift guide

FEBRUARY '83
Ralph Baer; video game movies; cable-TV; Atari 5200; '82 arcade scene; Special Section: *Easy Home Computer*

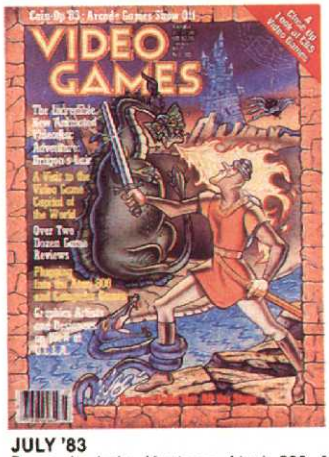
MARCH '83
Joysticks; E.T.; Raiders; Demon Attack; AMOA; Atari, Imagic & Coleco in court; Beating Top 15 Coin-Ops

APRIL '83
Jim Levy; Q*bert & Joust; Comsumer Electronics Show; Silicon Valley; EPCOT; Timex 1000; Ms. Pac-Man cart



MAY '83
Toy Fair; Video sports games; cartoons, comics & muppets video games; VIC-20; interactive laserdiscs

JUNE '83
Arnold C. Greenberg; Computerization of video games; VIC-20 programming; Rawson Stovall debut; sports games



JULY '83
Dragon's Lair; Vectrex; Atari 800 & computer games; CBS video games; Coin-Op Show; Graphic design

AUGUST '83
Frank O'Connell; Hot arcade & home games; TV's video game quiz show; Computer games; TI 99/4A; *WarGames*

SEPTEMBER '83
Consumer Electronics Show; Apple IIe; Mappy, Krull & Arabian coin-ops; Keystone Kapers; Astrocade & VIC-20 games.

VGB-V2-3

Mail to: **VIDEO GAMES**
Pumpkin Press, Inc., 350 5th Ave., Suite 6204
N.Y., N.Y. 10118

- ☐ $5 (Canada and Foreign $6) August 1982
- ☐ $4 (Canada and Foreign $5) October 1982
- ☐ $4 (Canada and Foreign $5) January 1983
- ☐ $4 (Canada and Foreign $5) March 1983
- ☐ $4 (Canada and Foreign $5) April 1983
- ☐ $4 (Canada and Foreign $5) May 1983
- ☐ $4 (Canada and Foreign $5) June 1983
- ☐ $4 (Canada and Foreign $5) July 1983
- ☐ $4 (Canada and Foreign $5) August 1983
- ☐ $4 (Canada and Foreign $5) September 1983

Total: _____ check ☐ money order ☐ (sorry, no C.O.D.'s)

Name _____

Address _____

City _____

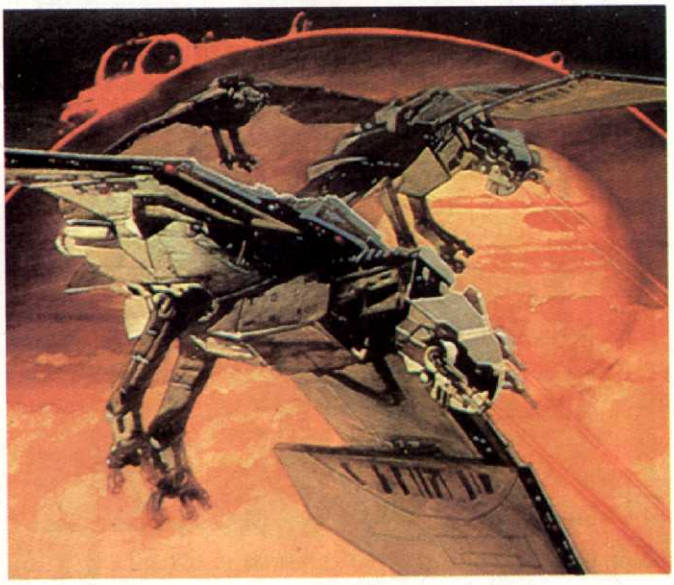
State _____ Zip _____

N.Y. State residents add sales tax.

SOFT SPOT

Year-End Outlook: Home Games Getting Better And Better

By Dan Persons



Flashback to 1982: Home gaming enters its third generation with the introduction of the ColecoVision and the Atari 5200 game systems. Atari is insistent that they will continue to support the six-year-old Atari 2600, drawing an analogy to the auto industry, where one can choose between a stripped-down Chevrolet or a classy Cadillac. According to Atari, there's room for both their low-priced Chevy, the 2600, and their high-priced Caddy, the 5200.

For the owners of the 2600, another bit of Detroit terminology may very well have crossed their minds: planned obsolescence, the technique where a manufacturer kills off the future of some piece of equipment by introducing another, incompatible, and presumably "improved" piece of equipment. They see the writing on the walls: Both the 5200 and the ColecoVision have more memory, better graphics, and more sophisticated controls, while the 2600, which had been originally designed to play only tank and pong games, is a virtual dinosaur, an antique that has trouble conjuring up the simplest of images.

Compounding an owner's fears is the fact that, in spite of the large number of games being released, about the only elaborate thing that most titles have are their ad campaigns. Most game manufacturers seem content to produce simplified, low-res knock-offs of Space Invaders, or Defender, or Pac-Man for the 2600, while the "super systems" can boast arcade quality adaptations of such games as Galaxian, Turbo, Vanguard, and Zaxxon. The message is clear: The 2600 is dead, long live the 2600.

Here we are, one year later, and it's safe to say that not only was the news of the 2600's death greatly exaggerated, but it appears that this "antiquated dinosaur" is actually going through a sort of rebirth. Game manufacturers have not been quick to abandon the system, which is not so surprising when you realize that a manufacturer would have to be certifiably nuts to drop a game system that has a built-in base of around 12 million units.

Meanwhile, having been chastened by the demise of companies like Games by Apollo and Data Age, manufacturers have come to the realization that the public will no longer buy anything with a flashy package and a catchy TV commercial. From now on, it's what's locked inside those microchips that count and, with retailers cutting back on shelf space as the video game boom winds down, only those games that offer the gamer more than just another slide-and-shoot can hope to survive.

The result has been that designers have been killing themselves to squeeze every last bit of power out of the 2600's limited memory. The techniques have ranged from the reduction of game options, the elimination of two-player games and the disabling of the Game Option and Difficulty switches, all the way to new chip designs that permit the 2600 to access an unprecedented 8K of memory.

The efforts have been worthwhile. We are starting to see games with elaborate plotlines and graphics that we didn't dare dream possible just a year ago. The effect of all of this has been to give the 2600 a new lease on life. With the mammoth library of cartridges already available (and lots more on the way), and with the price of a 2600 now dropping to below one hundred dollars in most areas, it now becomes the system of choice for the gamer who wants the most for his/her money.

Finally, credit must be given to Atari. It would have been easy for them to dump the 2600 in an effort to increase sales of the 5200. Instead, they were true to their word and kept up support for the system, not just with new carts, but also with such items as a trakball, The Graduate keyboard adaptor and replacement sticks. They have finally gotten the message that they can no longer rely on just a famous name, such as Pac-Man or E.T. to move a cartridge. As we shall see

in the next few months, Atari is preparing to release a series of licensed titles that, while allowing for the graphic limitations of the 2600, are some of the most faithful adaptations done for the home.

So don't throw out your 2600 just yet. While it may show its age in many ways, there are more than a few titles coming up that will convince you that, perhaps, the best is yet to come.

GALAXIAN

(Atari/2600)

Well, all I can say is: It's about time. In the world of dodge-and-shoot games, we owners of the Atari 2600 have been able to battle everything from demons to Communist mutants and, for the most part, they were worthy adversaries. But we have been waiting for a crack at the Galaxians, those insect-like aliens who almost single-handedly established the genre of macho games. Well, wait no longer—Atari has finally released **Galaxian** for the 2600.

By now, I bet that 90 percent of the video gamers in the United States could recite the setup of Galaxian in their sleep. At the top of the screen is a contingent of Galaxians, while at the bottom is your spaceship. On occasion, Galaxians will peel away from the group to make a bombing run on your ship. Using your joystick to move your ship back and forth, you can pick off the aliens as they remain in formation (they're sitting ducks), or you can go for the big points and try to nail those dive-bombers. Any creatures that slip past your ship return to the formation from the top of the screen. Clear out a screen of aliens and a faster and more aggressive contingent appears. This is a one-player game only, but Atari gives you the choice of starting out at nine different difficulty levels.

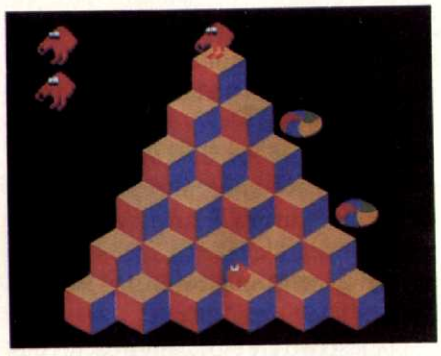
Those who are well-acquainted with the arcade game will notice that this version of Galaxian is markedly different. Whereas the aliens in the original stayed in a tight formation that moved back and forth across the screen, the Galaxians in the 2600 version are spread out nearly the entire width of the screen, giving them less room to move. They are also larger, making them easier to hit. Fortunately, this change in size and spacing is more than compensated for by the challenging game play. Especially at the higher difficulty levels, this version is definitely the equal of its arcade counterpart. The graphics, while simplified, are well-done. The animation is particularly good, and is enlivened by a neon-bright color scheme similar to the one used in Demon Attack.

Usually, after an extended session of game testing, I'll pop a personal favorite into the machine and play a few rounds just to relax. Normally, I choose Demon Attack or Reactor, but of recent vintage I've been selecting Galaxian. It's not an identical twin of its arcade brother but, with its great graphics and challenging game play, it is still a very good adaptation. Anyone who has waited all these years to get a hold of a Galaxian for his or her own will not regret having picked up this translation. Like the original, it stands as a true classic. —*D.P.*

Q*BERT

(Parker Brothers/2600)

By now, you must be acquainted with **Q*bert**, if not by playing the game at your local arcade, then by the series of magazine and TV ads that Parker Brothers has been running for several months. These ads, announcing the imminent arrival of the home version of Gottlieb's popular cube jumper, all follow the same approach: Prominent are big,



beautiful representations of the arcade graphics, while illustrations of the graphics for the home versions are considerably smaller. In fact, the TV commercials feature displays so small that, even with a 26-inch TV, it is extremely hard to judge how close the home game will come to the arcade original. I assume that the idea behind this approach is to tempt you enough so that you'll purchase the cart just to see for yourself. If that's the case, then those people who are going to be buying the Atari 2600 version may find themselves just a little disappointed.

Not that the game doesn't play very close to the original. As before, your joystick controls Q*bert, whose one joy in life is to hop up and down a pyramid composed of twenty-one cubes (seven less than the arcade version), changing the colors on the tops of the cubes as he lands on them. Needless to say, Q*bert is not permitted to pursue this simple pleasure for very long. Soon after Q*bert starts his trek, a purple egg drops onto the pyramid and bounces down to the bottom row. There, the egg hatches into Coily, a snake who hounds Q*bert's steps and attempts to put the bite on him. Coily is deadly, but he's not very bright. In fact, he can quite easily be led to his death. Hanging over the edges of the pyramid are several discs. All a player has to do is to position Q*bert on a cube just below the discs and, when Coily tracks him down and is just about to strike, hop Q*bert onto the disc. Q*bert will be carried back up to the top of the pyramid while Coily, in a fit of frustration, will hurl himself off the edge, netting the player a juicy 500 point bonus.

In addition to Coily, Q*bert has to watch out for Sam, a tiny green guy who, if not stopped by Q*bert, will reset whatever squares he lands on back to the original color. Setting the left difficulty switch at "A" also introduces into the game a profusion of deadly red balls which bounce at random down the pyramid, forcing Q*bert to take extended detours to get to the areas that he hasn't changed. Fortunately, Q*bert can freeze all these enemies for a few seconds of blessed relief by landing on a bouncing green ball that occasionally shows up.

When the tops of all the cubes have been changed to the color of the score counter, bonus points are awarded and Q*bert starts a new round on a new pyramid. Four rounds make up a level, and each level is distinguished not only by the increasing speed and intelligence of your adversaries, but also by some significant changes in the rules.

Level two, for instance, requires you to land on each cube twice, the first time to change it to an intermediate color, the second time to change it to the target color. In level three, every time you land on a square, it changes first to the target color, then back to its original color, forcing you to plan Q*bert's moves very carefully if you wish to complete the

round. This is a one player game only, and the only player selectable variation is whether or not to have the red balls present.

Judged against the arcade game, Parker Brothers' Q*bert comes out a decidedly lesser man. The graphics are low-res, with the pyramid losing it's three-dimensional optical-illusion effect and the characters losing most of their engaging animation (now I know why they used such teeny-tiny illustrations in the TV commercial). The chatter of the original's voice synthesizer has, by necessity, been replaced by inarticulate squawks, while the music, with the exception of a few ineptly executed themes, has been totally excised.

Two whole characters, Ugg and Wrongway, who travelled across the pyramid on the left and right-hand sides of the cubes and who also gave the game some needed variety from its essentially up and down movements have been omitted. As it is, the computer struggles with what few characters remain. Coily, who in the arcade game is constantly on the go, suffers the most. If you move Q*bert fast enough, Coily will freeze in his tracks while the computer tries to figure out what to do next. Even the visual part of Q*bert Qursing has been reduced to a measly "!#?".

And yet, if you can somehow forget the arcade game on which it is based, you might find that Parker Brothers' Q*bert is not such a bad game for the 2600. Arcaders might find this version a push-over, even in difficulty setting "A," but home gamers not acquainted with the kinetic pandemonium of the original should find this version a unique challenge. About the only thing that someone not familiar with Q*bert might find annoying is the joystick response, which is actually very similar to that of the arcade game. Q*bert's stick is *very* sensitive. So sensitive, in fact, that a player might find that Q*bert is much more precisely maneuvered with a sharp flick-release of the joystick rather than the more fluid and firm movements that most other games require. Between the unorthodox manner of holding the stick and the need to adjust your playing style, more time has to be spent acquainting oneself with the playing mechanics of Q*bert than is normally required.

Whether you're going to want to spend that time may well depend on how much you want a Q*bert of your very own. Arcaders who are hoping to recreate the original in their homes with this version would be better off sticking to dropping quarters into the original. While Q*bert for the 2600 remains an original and unusual game, it just can't hold a candle to the charm and challenge of Gottlieb's arcade version. The game is there, but what made it so alluring in the first place isn't. —*D.P.*

MOONSWEEPER

(Imagic/2600)

The folks over at California-based Imagic have really outdone themselves with the release of **Moonsweeper** for the Atari 2600. This one's murder.

In this one or two-player game, you are the pilot of the U.S.S. Moonsweeper, a small ship that has been sent on a rescue mission to Star Quadrant

Jupiter². In the first screen you are in the solar system of Jupiter². This is not a peaceful place. In addition to the orbiting moons that are your ultimate destination, your bottom-mounted spaceship encounters such destructive forces as Aurora Flares, which are emitted from the blazing sun at the top of the screen, and orbitting Photon Torches and Space Bullets.

The last two are especially treacherous since, in their circular movement around the sun, they can dip down below the bottom of the screen and then rise back up from behind your ship. You can cope with this onslaught of space debris in a variety of ways. What would appear to be the most sensible technique, manipulating your joystick left and right to dodge the solar refuse, is also a perilous one since, as your ship moves back and forth, it obeys the laws of inertia and momentum. Thus the Moonsweeper may not move fast enough to get out of the way of some bit of cosmic waste or, in successfully dodging one object, you might send your ship careening into something else.

Pressing the fire button permits you to shoot at the space junk for points, but you have to keep in mind that, as the Moonsweeper glides back and forth across the screen, it angles in the direction of its movement, thus making the shots fired from your cannon also travel at an angle. If all else fails, and you are staring Death in the face, you can pull back on the joystick and press the fire button to activate your forcefield. This will protect you from any collision but, for every second it remains active, points are deducted from your total score. Because of that, it should only be used in emergencies.

However, the best way of avoiding annihilation is to have your ship intercept one of the many moons orbiting the sun. This causes the second screen, which takes place on the moon's surface, to literally unfold before your eyes. Here, as the moonscape speeds under your ship, you must fulfill the primary goal of your mission: To rescue the miners that have been stranded on the moon.

They turn up at random on the surface, tiny dots on the horizon that eventually turn into little, frantically-waving figures as you draw closer. You need only pass your ship over them to pick them up. To help you locate them, a flashing square at the top of the screen will indicate a miner's horizontal location long before he shows up. Your ship maneuvers in a manner similar to the first screen, except here, forward and back on the joystick speeds up and slows down your ship.

Pressing the fire button allows you to shoot at both the towers that loom towards you on the surface and at the surface destroyers, which are saucer-shaped ships that zip crazily back and forth as they try to eliminate both you and the defenseless miners with their missiles. Pulling the joystick back while pressing the fire button fires a shot straight up into space, which allows you to destroy either the benign, but high-scoring, satellites that occasionally pass overhead, or the mother ship that launches the surface destroyer.

Once six miners have been rescued, you must guide your ship through a set of "accelerator rings" in order to gain the speed to blast off from the moon's

surface and back into the solar system, where the game repeats on the next highest level. Care must be taken on the moon rescue screen, since any collision with a tower, a surface destroyer's missiles, or the surface destroyer itself will cost you all the miners rescued and kick you back into the solar system, where you again have to struggle to make your way through to another moon.

Designer Bob Smith must have been in a mean mood when he created Moonsweeper, because it is murderously hard. The first screen teems with deadly detritus while in the second the surface destroyers and towers form an obstacle course that's a nightmare to negotiate. The speeds of all the targets are maniacally fast. Adding to the frustration is the fact that, by either design or accident, in the distance the miners closely resemble the towers.

Too many times, in thinking that a collision was imminent, I have snuffed my key to escape. But it's the severity of the punishment for being destroyed on the rescue screen that gets to me. I don't so much mind if a game kicks you back to the beginning of a screen when you bite the dust, but to send you all the way back to what is essentially the beginning of the game, without even letting you hold onto the humans you've rescued, strikes me as being just a bit unfair. And, unless you're the type who can latch onto a game's mechanics the second that you press the RESET switch, you can expect to be kicked back to the solar system screen quite often during your first few attempts at this game.

There are some wonderfully subtle and realistic details, such as the barely perceptible shadows that your ship and other objects cast on the moon's surface. A unique feature of Moonsweeper is that it actually lets you control its difficulty level while the game is in progress. The moons you land on are color-coded to indicate how difficult rescue operations will be. Blue moons are the easiest (and they're no pushovers), green moons are harder, yellow still harder, and red moons, well, do the words "suicide mission" mean anything to you?

But, with practice, it is possible to complete the rescue missions and, with victory such a dear commodity in this game one can justifiably feel a great deal of satisfaction in completing even the easiest levels of this game. Beginners may proceed at their own risk, but seasoned gamers, particularly those who have extensive Defender flight time under their belts, may just find that Moonsweeper is their kind of game.

—D.P

POOYAN

(Konami/2600)

The practice of naming games with the phonetic spellings of their Japanese counterparts has definitely gone too far. Pac-Man and Donkey Kong were okay, but **Pooyan**? That has to be the worst sounding name of all time. Still, I suppose it's better than if the folks at Konami had named the game with the English translation of the word, "Pig"?

If you haven't already guessed, this one or two-player game for the Atari 2600 is about a pig. A mother pig,

specifically, who is suspended from a basket on the right side of the screen and is trying to protect home and family from an onslaught of ravenous baby wolves. The wolves launch their attack from balloons which carry them up to and down from a branch that stretches across most of the width of the screen.

Using the joystick to raise and lower the basket, you must shoot arrows to pop the balloons, which sends the wolflings plummeting to earth. This is not as easy as you might think. Not only do the wolfettes protect themselves with shields that they only intermittently drop, but they also fire back at you. Allowing any of the wolf'uns to land safely only spells more trouble for the pig.

In the first screen, where wolves drop from the top of the screen to the bottom, the first lobo to touch down unharmed will scramble over to the far right of the screen. Here the malevolent canine will climb what looks like a three-story condominium, complete with balconies, and try to take a nip out of the pig, whose basket hangs from the roof of the building.

In the second screen, if you let enough wolfenkinder reach their perch at the top of the screen, they will awaken their daddy wolf (or mommy wolf, the sex is hard to determine from the low-res representation of the character) who works his/her way down the tether that supports the pig to give the mother porker a very unhealthy piece of his/her mind not to mention teeth.

From time to time a brick will appear at the top of the pig's rope. Position your pig over the brick for a second (not so easy, since it makes your pig an attractive target for the wolves' fire) and she'll turn red, indicating that she's picked the brick up. When fired, the brick will travel to the far left of the screen and then drop straight down, a neat way to eliminate one or more of those hard-to-reach mini-wolves at the far end of the screen. The bricks are useless, though, against the unaccompanied balloons that drift in the row closest to the pig. The brick just bounces off them.

In its original arcade incarnation, Pooyan was cute from the word go. And Konami has tried to capture as much of the feel of the arcade game as possible, but it just doesn't work. Aside from the fact that the graphics and movement don't come anywhere near those of the original, I have a problem with the entire concept of the game. It is perhaps too pat, too much of an attempt to jam all of the successful elements of other "cute" games into one package.

Admittedly, the action game underneath all the frills is not such a bad one. When it really gets going, you have to watch for attacks from both sides of the screen, while timing your shots for when the wolves drop their shields, also keeping your eye out for the appearance of the brick, and on and on. Stripped of its floss, and with improved graphics, Pooyan could have been quite a nice little game. As it is, I find it unappealing and unextraordinary. *—D.P.*

GHOST MANOR/ SPIKE'S PEAK

(Xonox/2600)

XONOX spelled upside-down is XONOX which is the name of the video game division of K-Tel International, the record distributor that brought you

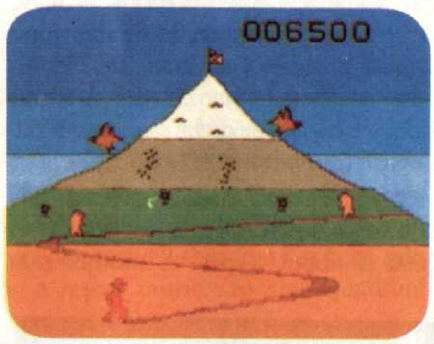
such classics as *Slim Whitman's New Wave Polka Party*. The word "xonox" has no meaning, but its peculiar ability to read the same whether rightside-up or upside-down very nicely reflects one of the major selling points of the company's games.

Each Xonox game cartridge is open at both ends. Insert one end of this "Double-Ender" cart in your Atari 2600 and you play one game. Flip the cart over and you're playing a totally different game. And if you fear, as I initially did, that these two-in-one cartridges mean that you'll be receiving twice the games with only half the quality, let me reassure you right off the bat that the two games in Xonox's initial release, **Ghost Manor** and **Spike's Peak**, are not only the equal of many games currently on the market, but are also two of the most elaborate games designed for the VCS.

Ghost Manor is a rescue game in which you must reach a friend trapped inside a haunted house. It starts out a little flat-footed, with a game of tag played between you and a ghost in a graveyard. The game, however, then picks up considerably in the second screen, which takes place in front of Ghost Manor. Here you must avoid the blows of a hammer-swinging mummy by maneuvering your on-screen persona back and forth at the bottom of the screen.

Meanwhile, you must shoot away all the various skeletons, witches, and bats that zip back and forth above you and, with all their activity, make Ghost Manor look more like Animal House. Clearing out the ghoulies and zapping the mummy transports you inside the house, where you must negotiate mazes on two different floors to locate the crosses that are hidden in the caskets scattered throughout.

Complicating matters is a vertical wall that slides back and forth across the mazes. Contact with it means death. Reach the third floor and ward off the vampire that guards your friend and you still must lead yourself and the freed victim back out of the house before you can consider your rescue mission complete. All of this must be accomplished within the time limit indicated by the hourglass at the top of the screen, and you had better do it right the first time, because you are only given one life per game.



On the flip-side there's Spike's Peak, a climbing game where you must use your joystick to get your mountaineer, Spike, up the side of a treacherous mountain. The first screen starts you off on a winding mountain path where Spike must avoid polar bears who emerge from their black caves, dash along the path, and enter other caves. Spike also has to jump mountain streams and duck into yellow colored caves in order to avoid the attacks of diving bald eagles.

Make it to the top of the path and the scene shifts to a sheer wall of rock. Here Spike must leap from ledge to ledge and climb painstakingly up the mountainside, all while avoiding showers of rocks and a giant boulder that can either push you back or cost you a life. Survive this screen and you still must climb a wall of glacial ice by either walking Spike across a zig-zagging crack in the wall or by having him slowly pull himself up with a sort of hand-operated elevator. In either case, Spike has to watch out for the Abominable Snowman, who rises up and sinks into the ice crack. In addition, frequent snowslides can send Spike sliding into the waiting arms of old abominable. Reach the top and the next screen shows Spike planting a flag at the summit as the wind screams around him and the Aurora Borealis glows in the sky.

It is obvious that designer Steve Beck has pulled out all the stops in creating these games. Both have the feel of a complete story—with beginnings, middles and ends—a rarity in a field where most games are designed to just go on and on and on. The variety within each game is amazing.

This is especially true of Ghost Manor, where each screen is practically a game in itself. Both games are distinguished by well conceived sound effects and, in spite of the macabre theme of Ghost Manor and the life-or-death struggle of Spikes' Peak, some of the cheeriest color schemes I have seen in any game. Even the spirit who inhabits the cemetery of Ghost Manor looks more like an animated rainbow than a threatening spook.

Comparing these games is like comparing apples and oranges. That's to Mr. Beck's credit, since it means that you're not just getting the same game done twice over when you purchase this cart. However, if I had to choose, I think I would give the nod to Ghost Manor. Aside from its varied game screens, it also features detailed graphics that more closely portray the real life objects they are supposed to represent. There are also such touches as a flickering simulation of lightning for the backgrounds, and a nicely ominous soundtrack that starts off with a wicked rendition of the tune that I believe is called "The Villain Lurks."

Xonox has even struck a blow for equality of the sexes in Ghost Manor by permitting the player to decide whether their on-screen persona will be male or female. This, thankfully, does not effect the difficulty of the game (though both games can be made harder by using the two difficulty switches), but it is a welcome addition, especially for those people who are tired of the predominantly male cast of most games.

If there's anything to criticize about Ghost Manor, it's that you're limited to only one life per game. This may not be an issue once you get used to the mechanics of the game, but until you achieve mastery, having to start from square one every time you bite the dust is a nuisance. Spike's Peak, in comparison, starts out with the traditional three lives and awards bonus lives at various point levels.

Neither Ghost Manor nor Spike's Peak are easy games. The latter in par-

ticular requires some quick thinking and deft timing if your mountaineer is to survive. I have yet to achieve the ultimate goal of either game, yet I don't doubt that victory is indeed possible. Taken separately, these would be impressive games. Put together and they form an incomparable package. If Xonox holds to its pledge to price this cartridge at a level competitive with other single-game carts, then Ghost Manor/Spike's Peak may very well be one of the best buys of the year. —*D.P.*

PORKY'S

(Fox Video Games/2600)

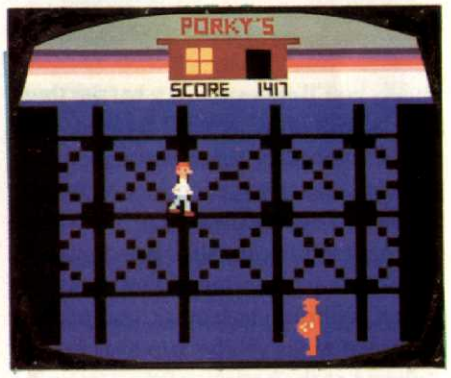
No, I didn't get to see the movie **Porky's**. And although according to most reviews, the film was tasteless, sexist and sophomoric, to the general public it was one of the most popular films of 1982. Apparently, somebody at Twentieth Century Fox figured that the people who filled the theatres for this film are also the people who play the most video games. So here comes Porky's for the Atari 2600. True to the movie, it's tasteless, sexist, and sophomoric. But it's also a great deal of fun.

In this one-player game, you assume the role of "Pee Wee" Morris, a character who, according to the coyly written directions, does not get his nickname from his height. Your goal is to blow up Porky's bar, depicted at the top of the screen, by using your joystick to manipulate Pee Wee through four different playfields.

In the first screen you must cross a vertically scrolling obstacle course of horizontally moving people and objects, a la Journey Escape, without getting hit. Make it all the way through the course (difficult, but not impossible), and you wind up in Porky's bar. At this point you must maneuver up a maze hidden in the beams of a scaffolding, without falling into the hands of Porky, a large, Stetson-hatted gent who tracks you at the botton of the screen.

Green and red arrows at either side of the screen will tell you if you're on the right path. If not, you have to return to the bottom of the scaffolding and start all over again. Care must be taken on the scaffolding, since standing directly on a vertical beam will send you tumbling down to the bottom of the screen and, most likely, into a confrontation with Porky.

Strictly speaking, if you can successfully complete these two screens, the next thing you will see is the sequence that ends the game: Pee Wee pushing the plunger that blows up Porky's. In most cases, though, you will either be run over by somebody in the first screen or come face-to-face with Porky in the second. Either event will send you plummeting into the other two screens of the game.



In the swamp screen, you must pole-vault yourself over the swamp to reach the ladders located at either side of the screen on ledges overhead. The first time you encounter this screen, you must build the ladders by placing bricks that show up on alternate sides of the screen. On subsequent visits to the swamp, you will only have to contend with Porky, who waits on one ledge to take some of your points away. Climbing up the ladder to exit the swamp places you in the shower screen.

Here you must ignore the silhouette of a young woman taking a shower at screen center, and maneuver up and down ladders and across platforms to push an object into a pit located at the bottom center of the screen. While doing this, you must avoid the amorous advances of the buxom Ms. Balbricker, who desperately hounds your steps. If you allow her to plant a kiss on your cheek, or if you fall into the pit, you will be bounced back to the swamp screen. If you successfully complete the shower screen, you will be able to again try your hand at the obstacle course and scaffolding screens. Each time you complete the swamp/shower cycle, an object is taken out of the obstacle course, making it easier to get into Porky's bar.

Scoring is unusual. You not only gain points for achieving each step toward your goal, but you also lose points for any setbacks you encounter. Since Pee Wee is essentially immortal (confrontations and accidents do not cost him any "lives"), the object of the game is not one of blowing up Porky's bar, but of doing so while winding up with the greatest number of points. Once you have mastered the game play, the color and difficulty switches can be used to increase the challenge.

Until now, I haven't been too impressed with the output of Fox Video. Their movie-based cartridges have appeared to be excuses for tacking famous titles onto games that could best be described as derivative. Happily, Porky's, while essentially a climbing game, is not only fresh and original, but also appears to reflect the spirit of the film upon which it was based.

The only major problem with the game lies in your punishment for bumping into any of the game's heavies. Until you get used to the mechanics of the game, expect to spend a fair amount of time in the swamp and the shower room, a situation that could prove to be very monotonous. Achieving mastery over the game play is something of a challenge in itself, since the instructions can at times be very vague.

As a remedy, here are a few hints: In the swamp screen, Pee Wee appears to pole-vault easier if you tilt the joystick diagonally in the direction of the jump as you press the action button. In the scaffolding screen, although you can climb up to the next level from either side of the vertical beams, only one side may be the correct path. If after you have climbed up a level you receive a green arrow at both sides of the screen, it means you are on the right path and can then climb up to another level. If you receive a red arrow, then you must return to the bottom of the screen (watch out for Porky!), retrace your steps along the part of the path that you know is correct, and try a new beam to get to the level where you failed.

The game is so original and entertaining that I can't help loving it. If it is as popular as the movie upon which it was based, and it should be, then Fox has a winner on its hands.

—*D.P.*

STRATEGY X

(Konami/2600)

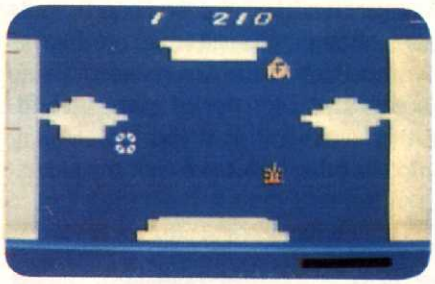
There may be businesses that are more trendy than video games, but I'm fin-

ding it difficult to think of any. A case in point has to do with the fact that not much more than a year ago, if you wanted to play a tank game on your Atari 2600, you had no other choice than to plug in Combat, the original cart that came with all VCS consoles.

Now, after all these years, everybody is suddenly coming out with a tank game, including Fox Video (Worm War I), Mattel (Armor Ambush), and Activision (Robot Tank), not to mention Atari's own (Battlezone). Konami, just now entering the home game field itself, has decided to follow suit with the release of **Strategy X**, which some of you may remember as a Stern-released arcade game.

In this one or two-player game, you use your joystick to maneuver a tank through a vertically scrolling maze of obstacles. Your object is to blast the pillboxes that are firing at you, while making your way to the gas tanks that will replenish your supply of fuel.

Joystick control is a little unusual; left and right sends you moving in that direction, release the stick and the tank returns to its forward direction. Pushing the stick forward speeds up your tank, while pulling back neither slows you down nor moves you backward. In fact, it doesn't appear to do anything. Occa-



sionally you'll come across a barrier that must be shot away, piece by piece, but you can normally drive through most obstacles, an act not recommended since doing so wastes fuel like crazy. Both you and the enemy can also fire through most of the obstacles. Your fuel indicator, a shrinking bar, as well as the number of tanks you have in reserve are displayed at the bottom of the screen.

This is a good, no-frills style combat game. The action is involving and the enemies are reasonably accurate in their shooting patterns. A certain amount of timing is required in the manipulation of the tank: accelerate at the wrong moment or hang around too long and you'll wind up losing a life. The scrolling obstacle course is nicely varied, and the graphics are simple, but smooth. I only wish there were more variety to the bad guys. There appears to be only the stationary pillboxes to battle against, with your tank the only moving object on the screen. It would have been nice if some other moving targets, such as tanks or trucks, were added to make things a bit livelier.

Strategy X is another basic shoot'em-up. No complex plot or fancy motivations, just shoot-and-move until your tank eventually bits the dust. It's fun to play, and challenging, but I can see it getting monotonous after a certain length of time. If you're in the market for a good stripped-down combat game, however, you might want to check it out. It's just a shame that the company didn't keep closer to what they offered in the arcades.

—D.P.

KANGAROO

(Atari/2600)

In **Kangaroo**, Atari's adaptation for the 2600, a mother kangaroo and her baby find themselves in the midst of a bunch of monkeys. They kidnap the baby kangaroo and ensconce him at the very top of their tree. Using your joystick, you must guide mother kangaroo up the branches of the tree to rescue her baby. As in the arcade game, which was a licensed effort from Sun Electronics, a multitude of functions are packed into one joystick control. Left and right moves your kangaroo in that direction. Up and down will either cause your kangaroo to jump and duck in place, if she is standing on a branch, or climb and descend, if she is standing in front of a ladder. Tilting the joystick upward at a diagonal will cause the kangaroo to execute a "super-leap," which is a jump combined with horizontal movement. The action button activates your kangaroo's boxing gloves, her only means of striking back at her tormentors.

You start off each screen with your kangaroo at the bottom left. As you work your way across the branches and up the ladders, monkeys scramble down the tree trunk and attempt to knock you off by hurling coconuts at you. If you're close enough to the simians, you can deck them for 200 points by hitting the action button. If not, you can avoid the

NEW! @!#?@!

Official Q*bert Video Shirt

Everybody's Qrazy about playing Q*bert. Now you can take him home with you on a colorful, baseball-style shirt. You get two FULL COLOR Q*bert designs printed on each shirt: artwork featuring Q*bert, his friends and enemies appears on the shirt front and sleeve.

The stylish, 50/50 cotton-poly jersey comes in white with royal blue sleeves—perfect for guys, gals, Q*bert fans of all ages. Available in a full range of sizes (S,M,L,XL), machine washable and your satisfaction is guaranteed or your money back.

You'll love your official Q*bert Video Shirt. Order yours today!

Send to:
COMPUTRON PRODUCTS
350 Fifth Avenue
Suite 6204, Dept. V12
New York, NY 10118

☐YES! Please send me _____(how many) official Q*bert Video Shirts @ only $7.95 each (plus $2 each for postage and handling). I have circled the size(s) of my choice: S M L XL

Name _____

Address _____

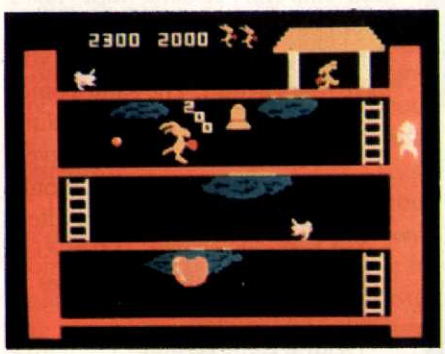
City _____

State _____ Zip _____

Send check or money order (no cash please) to COMPUTRON PRODUCTS. Canadian, foreign orders add $2 to total (U.S. funds only). New York residents add 4% sales tax; New York City residents add 8¼% sales tax. Allow 4-6 weeks delivery.

coconuts by either ducking under or jumping over them. Don't get too close to the monkeys, however, because contact with one will knock you off the branch. And don't hang around waiting for them to come to you, either, because not only do you run the risk that the monkey will stop and lob a coconut at you, but you also court being konked on the head by another coconut dropping from the top of the screen whenever you cease horizontal movement for more than a fraction of a second.

Scattered around the tree are bonus fruits that can be picked up for extra points. A bell near the top of the screen can be rung to replenish the fruits which have been picked up, just in case the mother kangaroo feels like a second helping. Climbing to the same level as the baby kangaroo rescues the infant, and starts you off on the next screen. There are three screens in all, one less than the arcade version, and two difficulty levels to choose from, as well as one-or two-player games.



Although Atari has made a decent enough effort at translating the arcade version, including the tune-filled sound track, so much else is missing. The graphics have suffered most, lacking the subtle details of the coin-op machine. Joystick response seems to be a bit off as well. This is not so bad during the relatively simple first screen. However, in the second screen, where timing is critical in order to jump from one branch of a multi-level tree to another, the situation is so bad that I have not yet been able to make it to the third screen, my kangaroo having fallen to her untimely death all too often. And don't hang around waiting for the appearance of the big monkey with the boxing gloves. He's in the arcade game, but must have been on vacation when Atari developed this cartridge.

Still, Atari is to be commended for attempting a climbing game that is a good deal more sophisticated than the 2600 version of Donkey Kong. Kangaroo may very well appeal to experienced gamers, or those so enamored of the concept of the arcade game that they are willing to ignore the total lack of graphic style in this low-res version. When it was originally introduced in the arcades the concept and execution proved to be successful for Atari. However, here there's just too much detail work missing and the effort suffers for the comparison.

—D.P.

MARINE WARS

(Konami/2600)

Back in the days before video was preeminent in arcades, a staple item of any self-respecting location was the submarine game. This was the machine where a player peered through a make-believe periscope across a molded plastic ocean and fired torpedoes at a set of ships that moved across the back of the cabinet. As the technology evolved, Midway resurrected the genre in a game that replaced the fake ocean with a video screen depicting torpedoes whizzing off into the distance and lines of ships moving in perspective. Then, video came home and Atari introduced a game called Air-Sea Battle, in which submarines at the bottom of the screen fired rockets at targets that passed overhead. Well now Konami has sought to fill in a missing dimension with their latest release for the Atari 2600, **Marine Wars.**

In this one or two-player game, you're the captain of a ship located at the bottom of the screen. Arranged in rows, located at three different distances from your ship, are lines of enemy vessels. Your goal is to use your torpedoes to knock all of the ships out of the water, while avoiding oncoming torpedoes from the enemy.

Moving your joystick to either the left or right will accelerate your ship in the direction selected. Swinging the stick in the opposite direction first decelerates your ship, then reverses course. You can tell your speed and direction by watching the movement of the little boat below your ship. This boat always moves in the direction opposite from the one your ship is moving in, while the speed with which the boat crosses the screen directly reflects your speed.

As the enemy vessels scroll onto the screen, you must time your shots so that the paths of your torpedoes will cross those of the enemy's crafts. This is simple enough with the ships closest to your own, while those farthest away from you require a keen eye and a sharp sense of timing.

Clear the first screen of ships and the action switches to a nighttime battle, where the furthest row of ships is only visible during a brief flash of light that follows a torpedo explosion. Clear out this screen and you get to take on dive-bombing airplanes in day and night combat.

An unusual feature is that you not only start this game with the requisite three ships, but each ship can take three torpedo hits, with each blast sinking your ship further into the water, before it is totally destroyed. You also have a limited amount of fuel, represented by a shrinking bar at the bottom of the screen. This supply is replenished every time you hit a target.

After so many fast-moving shoot'em-ups, Marine Wars comes as a pleasant change of pace that's slower, but no less challenging. The maneuvering of your ship, with the need to take into account the momentum built up by maintaining a certain speed, gives the game a realistic feel. Adding to that feel is the necessity of allowing for distance when firing your torpedoes. The graphics are nicely done, with the three layers of enemy ships moving in perspective relative to one another, and your torpedoes shrink in size as they zoom off towards the horizon. I only wish that Konami had provided some selectable game variations. As it is, you have the choice of one or two player games, and that's it.

Fans of fast paced action games may be a little disappointed with Marine Wars. Nevertheless, this decent adaptation of an old arcade standby is a nice change of pace. If you feel that the current crop of sea games have been missing something, you might want to check out Marine Wars.

—D.P.

COMPUTER CORNER

GAMES ON VIEW FOR THE COMMODORE 64

By Mark Brownstein, Dawn Gordon and Dan Persons

The Commodore 64 is a very good computer. Sure, you can use it to balance your budget, figure your taxes, maybe even draw up your biorhythm, but if you only use it for computing, you're really selling it short. Besides having a very advanced sound control chip (which gives you more control over sounds than you probably know what to do with), with its large available memory and bit-mapping graphics (you can actually control each dot on the screen) it's an excellent game playing machine.

We 've added the 64 to our stock of hardware for game reviews, so that all the 64 owners out there (at under $200, it's really something of a bargain, at least until ADAM comes out) can make your own choices. Over the next few months, we plan to give comprehensive review for *all* the major computer systems.

NEUTRAL ZONE

(Access Software/Disk or Tape)

The 64, as stated, is quite a graphics machine. **Neutral Zone** *must be* the definitive state-of-the-art in computer graphics. What you get is a view of your fighter, as it attempts to steer through space and destroy the numerous ships that are attacking (or heading toward) your base. These nicely drawn ships shoot what looks like meteors in your direction. If you don't avoid or destroy them, the screen goes white as the explosion rocks your ship. In fact, the explosions sound very similar to what you'd expect to hear if you bowled a strike at a bowling alley.

But, the key to this game is the graphics. Through all the space battle, the action takes place against a very high resolution spacey background. Individual stars (not round clusters of dots) dot the sky, here and there planets and other intergalactic bodies can be seen; all drawn with exceptional detail. The game scrolls across the sides, much like repeating wallpaper, with the space station in the middle.

Since drawing such a nice picture involves a great deal of machine coding, if you have a disk drive, by all means get the disk version (I am told that the cassette tape takes about *nine minutes* to load—any errors in those nine minutes and you have to try again). The game comes in a one and two player version, with five selectable difficulty levels (from beginner to crazy), uses only one joystick, which must be alternated between players. After each game, the computer calculates a value and ranking.

Neutral Zone certainly is a major showpiece for any serious computer gamer. Although a relative unknown, if this fine first effort is repeated by Access, it may emerge as a major supplier of better software.

SUPERCUDA

(Comm*Data Disk or Tape)

Supercuda is a well executed maze game which involves your fish (a Pakacuda) in a series of three mazes, one connecting to the other by openings at the top and bottom of each maze. Using a Pak fish, the similarity to the other Pac games is unquestionable.

This isn't Pac-Man, however. The three mazes really *are* different from one to the other. Unlike the original versions of the game, many of the mazes involve "pellets" that are two deep (in other words, you have to go through two levels to clean out one row of the maze). The graphics are pedestrian, with fish, an-

chors, lines, etc., drawn white on black. The major characters, however, are colored and fairly detailed. An interesting sound (which sounds as if it was lifted from *Jaws*) plays as you pick up each "pellet." And, of course, there are the special pieces which allow your fish to go after your attackers.

While there is no authorized Pac-Man for the 64 (and may not be for quite some time, if ever), Supercuda isn't really a perfect replacement. However, it is kind of fun, and would make the wait more tolerable. —*M.B.*

Games For The TI 99/4A

It seems as if many of the manufacturers are, in a way, dragging their feet in developing software for the Texas Instruments computer. There are a number of reasons for this. First and foremost is that Texas Instruments has a proprietary chip (meaning they own it) that must be used in order to program games with more than 8 K of memory. If anyone gets around to using this GROM chip (as TI calls it), they will be sued for patent or copyright infringement (as TI has announced in many media publications). The risk of being sued is too great for many companies to worry about—it's easier designing for more friendly systems.

The basic shortage, however, should be decreasing in size. Imagic has recently completed a deal which would have Imagic developing games for Texas Instruments. Although the details haven't been disclosed (and may not be particularly interesting, anyway), let it be said that the Imagic games will be legal, and, coming from Imagic, should be quite good.

We do, however, have two games from Funware, which somehow has been producing cartridge games for this computer (and may have had one of the earliest arrangements with Texas Instruments). In the next few months, there should be many more TI compatible reviews in these pages. —*M.B.*

SAINT NICK

(Funware/Cartridge)

Although it may seem odd sitting in 100 plus heating reviewing a game called **Saint Nick,** well, maybe it is. Saint Nick is also a bit odd. Saint Nick is a cute game, suitable for young or old (6 levels of difficulty provide increasing challenge).

When you first turn the game on, you have a title screen that must take about a minute or so, in which two witches, angry about having been left off the list last year enchant Santa's elves. The elves leave the house, spread gifts all over the front yard, and finally Santa comes out and picks them up.

Actual game play involves the elves walking through a maze, randomly distributing the letters to spell "SANTA" and leaving balls, horns, toy boats and dolls. When the elves are done with their mischief, Santa appears at the bottom of the maze. His job is to pick up all of each toy, as indicated on the side of the screen. If he catches a witch, or touches the wrong toy, the elves return and scatter more toys. If he spells Santa, he has a short period to run around immune from mistakes.

During the intermissions, the elves do their dirty work to the sound of Christmas carols. One of the major problems involved in the game, however, is that Santa is too big to fit in many of the spaces, so you can't really just move him around picking up parts.

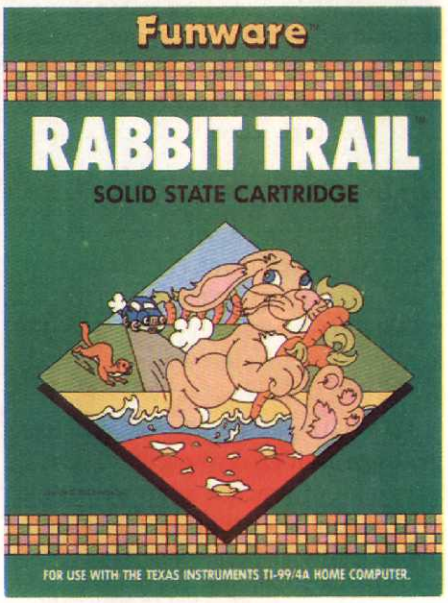
In spite of that shortcoming, Saint Nick is a surprisingly good game. It will probably appeal to younger players and is also a great way for parents and their children to pass some time. Although the interest in this game is probably limited to mostly seasonal play (meaning November-December), it can be dusted off every few months and played fresh. And considering the current shortage of TI game titles, it couldn't have come at a better time. —*M.B.*

RABBIT TRAIL

(Funware/Cartridge)

Going from the ridiculous to the even more ridiculous, we now venture to Funware's second cartridge this month: **Rabbit Trail.** The object is to get your rabbit from the bottom of the trail to the top. On the way, he must grab the carrots that are strewn along the trail, while avoiding the weasels who are out to get him. At higher levels you get hawks, traps and cars to avoid.

The game has seven screens, each more difficult than that preceding it (or so we assume), and basically, you go left to right, up and right to left. *Really Exciting.* There really doesn't seem to be enough going for it to make Rabbit Trail a really good game—software shortage, or not.



The recommendation on Rabbit Trail is to *try* it before you commit your money to buying it. If you like it in the store, maybe it's for you. It wasn't really for me. —*M.B.*

ASTROBLITZ

(Creative Software/VIC-20 Cart)

Astroblitz is an interesting Defender-ish game that puts you in control of a "fast moving rocket plane." What you must do is make your planet safe by

destroying all dangerous objects, either in the air or on the surface. And there are plenty of them. On the surface, gun towers are busily shooting at you. In the air, UFO's, Bombs, and Guppies are similarly attempting to shoot you down. But avoiding all those little white shells is a really rough job: Hand-eye coordination is a must here.

At the top of the screen is a skinny little radar line, telling you what's coming at you. And at the end of the game, you have a high score screen, which will remember high scores until you turn the game off.

One of the best parts of the game, however, has little to do with game play itself. At the beginning and end of each game, the screen scrambles, with the existing screen receding off into the distance. It sounds like a person running downstairs, and is a good effect.

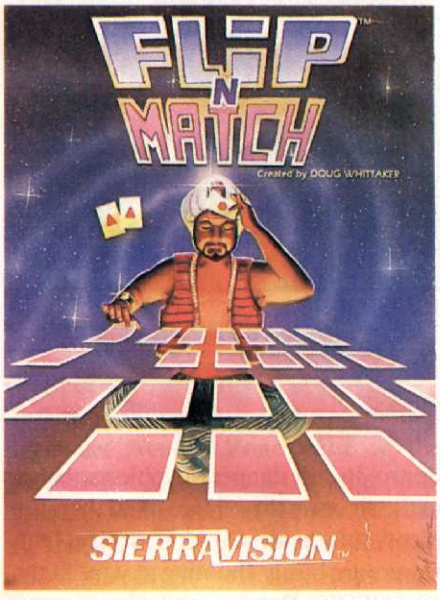
Astroblitz offers you a different challenge each time you reset it. And it takes a lot of practice to do well at the game. Again, since the original (Defender) probably won't make it to the VIC-20, you will probably be happy with this in some ways superior game.

—M.B.

FLIP 'N' MATCH

(Sierra On-Line/VIC-20 Cart)

Flip 'N' Match from Sierra On-Line is an adaptation of the classic game of Concentration. You're presented with a grid of one hundred squares, each covering one of a pair of objects. Using either a joystick or the VIC keyboard, you select two squares at a time. If the objects under the two squares match, then the objects are removed from the board and you're awarded ten points. If the objects don't match, then the squares are covered over again.



Your goal is to uncover and match up all fifty pairs of objects. Two players can compete against each other for points, or one player can race against the clock, which can be set for a time period ranging from fifteen to forty minutes. If the thought of facing a one-hundred-square-board is too intimidating for you, then the tape can be turned over to load up Flip 'N' Match Junior, a decidedly simpler game where one or two players can go up against a board of twelve pairs of objects and one "wild card."

You've probably already gotten the idea that this is not a game for action fiends. But who said that the only worthwhile thing in life is blasting aliens? Done solitaire, Flip 'N' Match is a good test of memory. With a friend, it's one of the few non-sports games that can be played head-to-head. As far as graphics and sound are concerned, the package is far from lush. But designer Doug Whittaker has come up with a wide variety of objects ranging from abstract designs to happy faces, with the graphics on the Junior version being especially well detailed. Both joystick and keyboard are easy to handle. The joystick, however, holds the edge as far as speed is concerned, which is something to keep in mind if you're going against the fifteen minute time limit.

Flip 'N' Match is not exactly the sort of game that gets trotted out when you want a hard-driving shoot-'em-up. It does, however, provide a nice change of pace, especially for people who flinch at the mere sight of a laser cannon. If you want something that emphasizes brain power over reflexes, then you should definitely look into Flip 'N' Match.

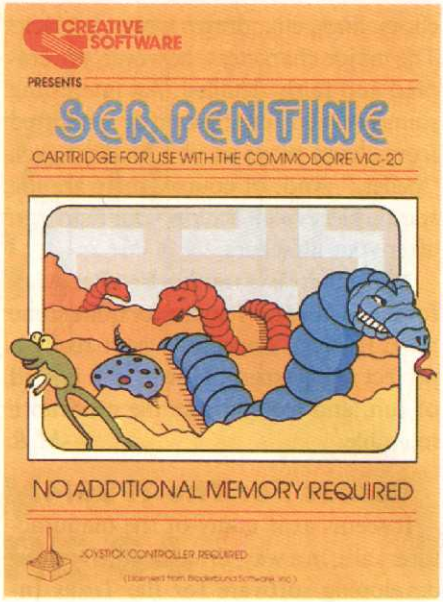
—D.P.

SERPENTINE

(Creative Software/VIC-20 Cart)

Serpentine is an interesting game. The object is to guide your snake through a maze which is being patrolled by other, initially larger snakes. It's a case of snake-eat-snake. What you have to do is maneuver your snake in such a way that it can eat the other snakes on the maze. Alternately, the other snakes will eat yours if you get in the way.

Head-to-head contact goes in favor of the other snakes and is sure death (unless they are partially eaten by your snake and turn white). Jumping around the maze are snake parts—whichever snake eats the part grows another segment. The smaller snake moves fastest, since its whole body can turn quickly (something like a Volkswagen compared to a Cadillac), but you pay the price by having less segments to lose.



The graphics are clean and crisp, controller motion is appropriate and responsive, and the sound enhances the overall playability. Serpentine is a welcome change from many of the other games available for the VIC-20.

SPACE EGGS

(Sirius Software
Atari 400/800 Disk)

Space Eggs is a fast and exciting game that pits the player against enemy eggs and their inhabitants. With your horizontally mobile three stage spaceship you must defend your home world against these creatures or they will wreak havoc among the planet's dwellers. Your ship's first stage (which blasts away from the other two) has one phaser. The other two stages also separate from each other as each stage is destroyed, and they come equipped with dual-firing phasers.

As the scene opens your first stage separates from the other two and confronts a moving swarm of seemingly benign eggs. As you blast each egg its inhabitant pops out and descends for the kill. To gain points the player must hit the inhabitant (spiders, lecherous lips, wolves and fuzzballs) before it hits the ship. As each wave of attacking monsters is destroyed the next variety appears for another confrontation. If the player manages to defeat every onslaught, the final drove will include all the nasty creatures at once, making the play much more difficult. If by chance one of your stages is destroyed, you must

go through each variety all over again and defeat the beasties before they take over your planet.

The best strategy is to pick off each egg one by one, as the other eggs won't attack until their inhabitants are broken free by your fire. And this becomes most difficult with your second and third stages because of their dual-firing phaser weapons. Fortunately, you have unlimited energy, and continuous firing is possible by holding down the joy button.

Because Space Eggs is a horizontally mobile game a keyboard, joystick or paddle can be used. However, the paddle is rather slow and sluggish, so the joystick is a better option. The graphics are decent, the sound good and it's a fast and action-packed game. —*D.G.*

GORF

(VIC-20 ROM Cartridge
Commodore)

What's in a name? That depends. If it's a name like **Gorf**, there could be several million dollars in it. That, I assume, is the reason why Gorf's creators at Bally/Midway have permitted three different software vendors to release their own versions of the game. CBS Electronics introduced an Atari 2600 cartridge, Roklan Software has one for Atari computers, while Commodore created a ROM cart for their VIC-20.

As with the other home versions of Gorf, Commodore has translated four out of the five original screens of the arcade game, the missing one being the Galaxian wave. (Atari, which owns the exclusive home rights to Galaxian, apparently has sharper lawyers than Bally/Midway, although the originators were Namco.) The rest of the screens have been brought intact to this version. The game starts off with Astro Battles, which is really a rewrite of Space Invaders with a smaller group of more aggressive aliens.

Complete that screen and you move on to Laser Attack, where a pair of Gorfian leaders, each protected by four ships, including one laser-firing craft, take potshots at your spaceship and try to dive into it. From there it's on to the Space Warp screen, where you must choose to fire at, or dodge, the spaceships that come whirling crazily out of a central core.

Survive that wave, and you face the Gorfian Flagship, which fires photon torpedoes at you. This ship can only be destroyed by chipping away at its outer hull and landing a direct hit to its central power core. Complete this screen and the game starts all over at a faster speed. As in the arcade machine, your joystick controls the spaceship at the bottom of the screen. This ship can move horizontally the full length of the screen and vertically up to about a third of the screen.

I won't deny that Commodore has kept this translation challenging. Battling the denizens of the Gorfian empire is tough and only gets more so as the game progresses. Nevertheless, I can't help feeling that there's something missing from this VIC-20 version. The graphics and sound are lackluster, imitating the original but not quite capturing its feel. With the exception of the flashing, colorful display that comes with the destruction of the Flagship, there are no fanfares, or visual fillips to egg you on and make you want to see more.

There's also one unpleasant peculiarity in the firing mechanism. If you press the firing button while a shot is still on the screen, that previous shot is cancelled out and a new shot is fired. This eventually works out to your advantage, since you don't have to wait for one shot to clear the screen before firing another. But people who are used to rapid-fire mechanisms will find that, while the game lets them think that they are pulling off round after round, they are actually only cancelling out shots that never have a chance of touching the enemy.

With so many Gorf enthusiasts out there, I wish I didn't have to say that Commodore's version, while probably better than the one CBS did for the 2600, still isn't much fun compared to other alternatives.—*D.P*

SNAKE BYTE

(Sirius Software
Atari 400/800 Disk)

What can you say about a game which can literally tie you up in knots? Well, if you're not careful **Snake Byte** will get the best of you, and your poor little reptile will go bye-bye. This twenty-nine level maze-type game is full of fun, as you must maneuver your snake in position to eat the ten apples strewn about the playfield. Only after this is accomplished can you exit the door that appears at the top of the screen, and then on to the next level of play.

After you become proficient at eating apples you can make the game more interesting. A screen prompt at the beginning of play asks you how many Perilous Plums you want (0-2). By answering 1 or 2 you will get 1 or 2 hazardous plums. What's so bad about plums? Well, these little bouncing cereal-toppers will destroy your snake if any of them should land on its head. Of course, you will gain five or ten points extra for each apple eaten if you play with the Perilous Plums on the screen. Also, if you want a higher score, eat the apples quickly. Not doing so means that three penalty apples will appear, and you will have to eat them as well before you can exit to the next level. Fortunately, a little time graph on the

side of the screen will let you know how much time you have left, so you can plan to work faster if time starts to run out.

Joystick control is pretty good, and it has to be, because if you hit a wall your

snake dies and you have to start again with another one (there are three in all). By the way, as each apple is eaten the snake becomes longer and faster, and ultimately more difficult to control. So it's a good idea to take care of the closest apples first and then move up toward the top of the screen.

All in all, Snake Byte is an interesting and very enjoyable game, with above average graphics, and pleasant sound characteristics. The game has a pause feature because of the keyboard and you can quickly start where you left off.—*D.G.*

WAYOUT

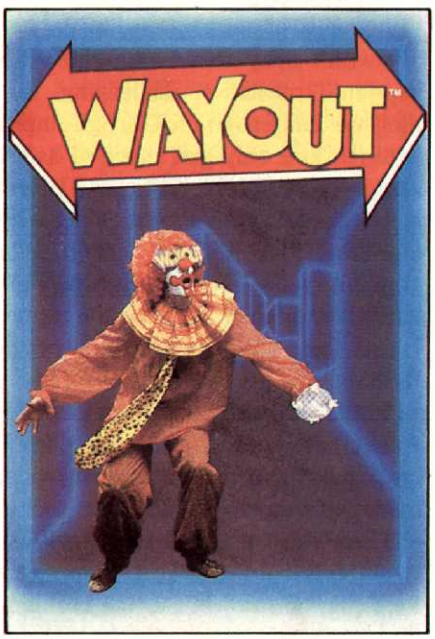
(Sirius Software
Atari 400/800 Disk)

Just as its name suggests, **Wayout** pits the player against a tortuous 3-D maze, and the obvious object of the game is to find your way out. With only a compass and a mapmaker (which visually marks your route at the bottom of the screen by displaying the parts of the maze you have traced) at your disposal, you must follow a labyrinthine path to the black and red pulsating portal. This portal can only be seen and heard (it sounds like a hurricane) as you approach quite close to it. And fireflies (little white specks) found in abundance can signal the player that he or she is close to getting out.

As usual, there is one catch, and it's called a Cleptangle. This creature's only purpose in life is to steal your compass and mapmaker. Fortunately, this only occurs when you come in contact with him, and each time you do one of your tools will be taken from you. The only way to retrieve them is to make contact with the Cleptangle, and his very distinctive sound will tell you that you're close.

There are twenty-six mazes in all, and scoring is accomplished by time units: The faster you get out, the less time units you consume for a better score. The disk will remember your score for each maze, and when you break a record for getting out of a particular maze, the computer will automatically set the new record. The player may exit a game at any point, have the game saved, or even resume the game at the same point later on. Keyboard, joystick, and paddle control is all possible, and the player should try all three to see which best suits his or her taste.

Wayout's graphics are quite good, and traveling through the maze will remind you of running very quickly through a partitioned office facility. The

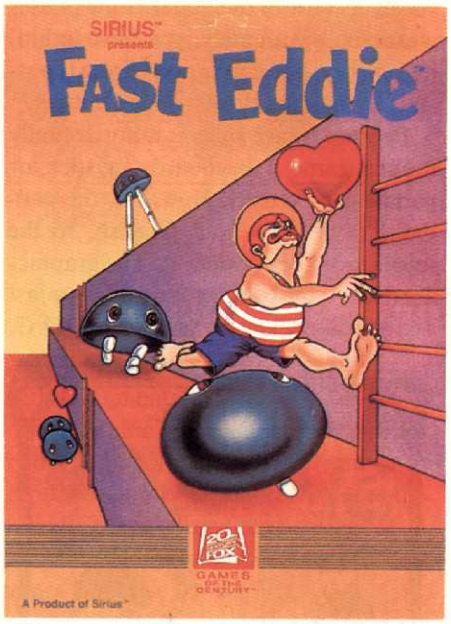


sound too, is above average, and the player is always kept abreast of the amount of time units spent, as the clock is at the top of the screen. Unlike many other games, this one has numerous saving features that make it very easy to store favorite positions, and continue a game at a later date. This is very important because it could conceivably take a number of hours at the higher levels to find your Wayout.—*D.G.*

FAST EDDIE

(Fox Video Games
VIC-20 ROM Cartridge)

This month's entry in the "Big Deal!" category is Fox Video's **Fast Eddie**. This ROM cart climbing game for the VIC-20 was originally released in an Atari 2600



version that came out just slightly before Coleco released their version of Donkey Kong. Apparently, in their rush to beat Coleco to the punch, the folks at Fox forgot to put a few things into Fast Eddie such as good sound or graphics, as well as interesting game play.

The object of the game is to help Eddie grab prizes such as hearts and zeppelins that float around a five-level screen. Getting in his way are the Sneakers, little dome-shaped creatures moving back and forth across the platforms. The joystick controls Eddie either horizontally or up and down on ladders, while the action button lets him jump over the Sneakers or hop up to grab a prize.

Grabbing ten prizes causes a key to materialize over the head of the topmost Sneaker. All Eddie has to do is leap over this Sneaker's head and grab the key. Eddie can then begin at the next level, grabbing ten prizes and getting the key so that he can grab ten more prizes and another key, and well you get the idea.

All this wouldn't be so bad if Fast Eddie had some character, something that made it unique. Instead it comes as close to being a generic video game as I ever want to see. The graphics are nondescript and the sound unexciting.

The Sneakers don't exhibit a trace of intelligence. Aside from the ladders changing places and the Sneakers speeding up between rounds, there's no variation in game play. There are no traps, no pitfalls and, since there's no time limit, there's also no real reason for Eddie to be Fast!

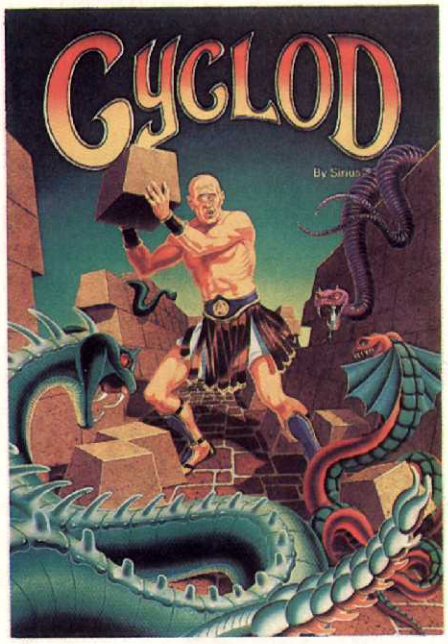
There isn't one element in Fast Eddie that an experienced gamer couldn't handle in his sleep. Fast Eddie is another one of Fox Video's "Games of the Century." The claim is true enough: It must have been designed for people who are 100 years old.—*D.P.*

CYCLOD

(Sirius Software
Atari 400/800 Disk)

As a lone Eyeball you must smash as many snakes as possible before they get you. That's the idea behind **Cyclod**, and this imaginative game requires fast action as well as smart strategy.

As soon as the maze screen appears you notice blocks of red bricks strewn around the playfield; also present is a slithering snake, and to put it out of commission you must hit it with a brick



at any point on its body. Rather interesting are the different methods you can use to smash a snake. Options include a direct hit (but be careful, if the reptile hits you you're dead, and you only get three Eyeballs), or even blocking a snake in with bricks, and when executed correctly the snake will smash into the bricks and kill itself for you. This is especially useful during the higher levels when there are numerous snakes running about, and you can only concentrate on one at a time.

Scoring is based on how many snakes you kill (the shorter and faster ones are worth more points) and there are seven snakes in each level. Bonus points are awarded at the completion of each level, and the last ten scores are retained on the disk.

Cyclod offers twenty different and challenging levels of play, with the highest levels requiring a great deal of patience, as you no doubt will be confronted with at least three fast moving snakes. The lower levels, 1-5, have their own problems because the Eyeball is rather sluggish at slower speeds, but once you get up there everything moves very quickly. The graphics are average, and so is the sound, but the game is good.—*D.G.*

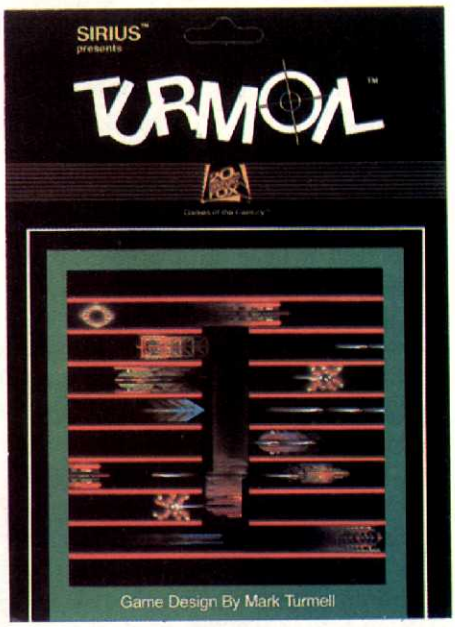
TURMOIL

(Fox Video Games
VIC-20 ROM Cartridge)

Turmoil, which had been adapted for the VCS, has now been programmed for the VIC-20. In this Fox Video ROM one-player version there's hardly time to breathe, much less think! Your joystick controls a ship that occupies a seven-level vertical channel at the center of the screen. Across each level travel several types of alien craft. Your goal is to zip up and down the channel and, using the joystick and fire button to shoot left and right, zap all the aliens while avoiding collisions.

Arrows, if permitted to travel from one end of the screen to the other, turn into tanks that can only be destroyed when they're moving away from you. Pulsating, donut-shaped "prizes" occasionally appear. If you don't travel down the level occupied by the prize and touch it for bonus points, then it turns into a Supersonic Cannonball that oscillates quickly over the channel, making passage across that level very difficult. Even if you do grab the prize, you still have to get back to the channel before an indestructible Ghost Ship mows you down. There are nine different skill levels and a bonus ship is awarded at the completion of each level.

At first, I wasn't too impressed with Turmoil. The ship, which moves in seven discrete steps, seemed hard to control. With the alien ships moving so fast, it was impossible to line my ship up with the level that I wanted to fire in. Then I caught on to the secret of this game: Speed counts more than accuracy. Forget about aiming, just keep your finger down on the fire button (the ship is equipped with a rapid-fire laser), and keep spraying shots down the lanes. With time, your reflexes will develop to the point where you can nail ships, grab prizes, and avoid obstacles with a flick of the wrist. And believe me, there's a great deal to develop your reflexes with. The acceleration of action is well-planned and the prizes, tanks and cannonballs will keep you on your toes.



You're given the option of playing with either a joystick or the VIC's keyboard, however, I suggest you opt for the joystick. The graphics are colorful and clever, especially in the way aliens skitter offscreen when hit, rather than just blowing up.

The only complaint I have is one that applies to all Fox games designed for the VIC-20. In testing these games, I've found that the cartridge casings are so flimsily constructed that I eventually wind up breaking one of the pins that are supposed to hold the circuit board in place. Without those pins, inserting the cartridge into the VIC becomes an even greater ordeal than it normally is. Of course, the circuit board can be removed from the cartridge and inserted without its casing, but the entire situation doesn't speak well for Fox's quality control.

Cartridge problems or not, Turmoil's action is quick and neat, with game play that's clever and original.—*D.P.*

HARD SELL

Coleco's Gemini: The Dual Purpose Game System

By Mike Sittnick

For years, the choice between low-cost video game systems was limited to the Atari 2600 and the Odyssey². In fact, Atari held a huge advantage over the Odyssey because of its superior graphic and memory capabilities. Odyssey's keyboard and optional voice module, however, allowed Odyssey to create superior educational games for children. Now, another video game giant, Coleco, has entered the low-cost video game market with Gemini, a machine that can play *all* cartridges made for the Atari 2600 (including Starpath's supercharger and Tigervision games, which do not fit into Coleco's Expansion Module #1 for ColecoVision) and with the addition of the KIDVID Sound Module will add prerecorded voices to children's games made by Coleco.

This new machine had to clear several major obstacles just to make it to the marketplace, all part of a lawsuit Atari levied against Coleco. Atari charged that its patents were violated in Gemini's construction. The companies settled out of court and Coleco is paying an unknown royalty to Atari from the sales of Gemini. It may yet turn out that Atari loses money on the deal, however.

Since Gemini's debut in May, there has been a price war between the two machines. It is no coincidence that Atari

added Pac-Man as a free cartridge in addition to Combat when Gemini included a free Donkey Kong Jr. game with its purchase. Coleco retaliated to Atari's addition of a free Pac-Man game with a free Mouse Trap game, which looks and plays more like Atari's Pac-Man than the original Mouse Trap coin-up. Since then, prices have steadily declined on both machines and are now selling for approximately $70.

Physical Attributes

Gemini measures a slim 11 × 6.5 × 2.25 inches, which is slightly smaller than the Intellivision II, making it the smallest major video game machine on the market. Because of this, it's very light and portable. If it weren't for the transformer and controllers, it would be as easy to carry as a small hardcover book. The machine's black color with silver trim is sharp, and makes the Gemini look a little like a small ColecoVision.

The cord to the television set can be removed for easy carrying, or it can be replaced with a shorter or longer cord, an advantage not found on the Atari 2600 or Odyssey². The game select, reset, on/off, and difficulty switches are conveniently located in the front. This is especially important in games such as Star Master and Phaser Patrol, that require movement of these switches during the game.

The controllers plug into the front, unlike the Odyssey² and Atari 2600 controllers which plug in the back. Having the controllers plug in the front gives the game a neater appearence since there are no wires going over the top of the console. Frontal jacks for the controllers also allow the players to move a little farther away from the machine.

Except for the small size of the console's switches, Coleco made Gemini as convenient to operate as possible. The small machine feels very solid, and it appears that thought went into every detail of its design, from the compact size of the unit itself, to the location of the controller jacks.

Controllers

The controllers look like the young offspring of a ColecoVision joystick, Atari 2600 joystick, Atari 2600 paddle controller, and the Intellivision controller. It has the same shape and color as the ColecoVision joystick, the same shape of stick and paddle knob as the 2600 controllers, and the petite size of the Intellivision controller.

There are important pluses and minuses about these controllers. The joystick definitely feels better and more precise than either the Atari 2600 or the Intellivision controller. Some even like it better than the more expensive ColecoVision and Atari 5200 controllers. The stick is good and long, and moves easy, but quickly self-centers again on release.

The bad news is that this is a very cheaply made joystick. Open it up, and there are no leaf switches, and not even a dimple switch. All you'll find is a metal brush that will complete the circuit for a certain direction by one or two (for diagonals) of the four metal contacts. With metal constantly hitting metal directly, the metal will fatigue very quickly. The 2600 and Odyssey² joysticks are not much better, but they do have a protective coating to add to the lifespan of the joysticks.

Coleco made Gemini as convenient to operate as possible. The small machine feels very solid and appears thought went into every detail of its design.

Interestingly enough, Dave Zurzuski of D-Zyne, who makes quality replacement joysticks for the Atari 2600 and compatible machines, said he was approached by Coleco about making joysticks for Gemini with microswitches, the most durable joystick mechanism available. However, a while later, Coleco decided to "put their energy in a different direction."

The fire button on the controller is mounted on the side just like the ColecoVision model. Unfortunately for southpaws, there is only one, and it's on the left. The fire button is as cheaply made as the joystick, but it's very responsive and has good action to it.

Too bad the same cannot be said about the built-in paddle controller. Even though any paddle controller coming with the system is an advantage, since Atari removed the free paddles from the 2600 package when they lowered the price, the Coleco paddles are far and away the worst ever seen. Even the paddle controllers on a $15 Pong game are better.

Coleco does not use a normal analog potentiometer (a potentiometer is any variable resistance device, like the volume control on a television set) in the construction of the Gemini controller. Instead, they opted for a paddle controller with a metal brush mounted on the bottom of a plastic knob, that touches a place of metal. The paddle actually scrapes as it is turned! There is no resistance in it, either, nor any tension in the knob so it's difficult to move it precisely.

Coleco's Gemini controller, however, was well conceived in design. The shape is comfortable and eliminates a set of wires by building the paddle into the same controller with the joystick which was ingenious.

Unfortunately, the quality of construction does not match the quality of design. For less than $5 more per pair, Coleco could have made a more durable set of joysticks and paddle controllers that are at least adequate. Not to mention another fire button for lefties.

Overall, these controllers rate better than the Atari 2600 and Intellivision controllers simply because they are easier to use (except the paddle), and are more responsive and accurate.

KIDVID Sound Module

Coleco is planning to support Gemini with an expansion module called the KIDVID Sound Module. This is not a voice synthesizer like Odyssey's Voice or Mattel's IntelliVoice. Basically, it's a cassette player that is turned on or off by the video game. The tape will relay instructions to players who are too young to read the instruction booklet. Moreover, the instructions will be explained by vocal characterizations of the characters in the game.

At any time during the course of the game, the on-screen character may ask for a response from the young player. The youngster will then have a limited amount of time to answer a question, perhaps, for instance, by pushing the fire button for "true" or the joystick for "false." The games are intended to be educational as well as entertaining, and three cassettes come with each game car-

tridge to keep the action varied enough.

The KIDVID Sound Module will work on any Atari 2600 compatible video game system, including the Sears Video Arcade, Coleco Expansion Module #1 for ColecoVision, and the Mattel System-Changer for Intellivision. The original announced retail price was $70. But now sources at Coleco say that the KIDVID Sound Module will sell for about $50. It can also be used as a low-fidelity tape player.

Although it works on any Atari VCS compatible system, the sound module has the same black trim and rounded edges that makes it look most at home sitting right next to a Gemini system. The addition is supposed to be on store shelves in October, but don't be surprised if it's late. Coleco has been working so frantically on the ADAM computer that they have missed announced release dates for several Coleco cartridges and hardware peripherals, and the company has put off the seperate release of the Super Game Module for an entire year!

This may not happen with the KIDVID Sound Module, however, since it's construction is comparitively simple. Not to mention the fact that Coleco has dropped big money for licenses that are geared entirely for children. Coleco now owns the rights to all Dr. Seuss characters, such as the Cat in the Hat, Myrtle the Turtle, Sam I Am, and the Grinch. Coleco also has licenses for the Berenstain Bears, the Wizard of Oz, and of course, the Smurfs.

KIDVID Sound Module will come with a free Smurf cartridge, a tradition Coleco has continued with almost every piece of hardware ever since Donkey Kong came free with ColecoVision. The free cartridge will have different adventures for the blue furry creatures than the original Smurf Rescue in Gargamel's Castle, and will be available with three cassettes to provide the narration and vocal characterization.

The KIDVID Sound Module does have limitations. Coleco isn't pretending that it's as sophisticated as a voice synthesizer, nor is it a random access device. The tapes play straight through with the module only starting and stopping on cue from the Gemini or another machine. On the other hand, the voices are totally realistic and identifiable, unlike computer voice synthesizers.

Coleco will not be releasing any adult games in the Sound Module series, and is aiming the games they are making for the three to seven-year-old group; a group the company feels has been practically ignored by the video game market. The module is probably just right for these youngsters. It only has three buttons and a volume control, and is as easy to operate as a portable cassette player. Most children can operate it without adult supervision.

Even though the tapes play the same every time, it's the video game that interprets. For instance, if there is a question asking how many Smurfs are on the screen, the tape may ask the child to press the fire button for Smurf. Even though the tape will always say, "How many of us Smurfs are on screen, press the button for each of us," the actual number of Smurfs can change each time the game is played. It will not be a matter of memory for a child to master such a task, he or she will actually have to learn to count.

THE KIDVID Sound Module is probably just right for youngsters. It has only three buttons, a volume control and is easy to operate as a portable cassette player.

With a name like KIDVID Sound Module, can a more sophisticated Sound Module be far behind? After all, Coleco has already announced expansion peripherals for ColecoVision. At the moment, according to Barbara Wruck at Coleco, no other expansion units are in the works. Of course, Coleco has been known to pull surprises before. Most likely, Coleco's releases will be like modern motion pictures. That is, don't expect to see module II unless module I is a big hit.

Overall, the Gemini unit appears to truly be an alternative to the Atari 2600 and Odyssey². Unlike Expansion #1 and the Mattel System Changer, it works without support from another machine. The price is as low as, or lower than, the other two stand-alone low price systems. With the addition of KIDVID Sound Module 1, the Gemini has real educational capabilities or young children.

Its small size is ideal for a small apartment, a dorm, or just for children who may want to bring it over to a friend's house. The Atari 2600 compatibility allows the largest individual source of cartridges to be used on it. The joysticks are superior to the Atari 2600's in terms of playability, and are on par with the Odyssey²'s less versatile joysticks. Gemini is definitely recommended for Atari 2600 owners whose old machines may be irreparably broken.

If these owners buy a new Atari 2600, they will be stuck with *two* crummy Combat cartridges and probably *two* almost-as-crummy Pac-Man cartridges. The two free Coleco Gemini games, Donkey Kong and Mouse Trap, are certainly better than the free game that comes with Odyssey², which is a boring car race game and word scrambler.

"Gemini" is certainly an appropriate name for this nifty little system. Everything about it suggests duality. Not only does it come with two free games, but the controllers serve a double purpose, containing a joystick and paddle controller in the same device.

With the KIDVID Sound Module, Gemini can serve entertainment purposes and educational purposes. Finally, thanks partially to the introduction of Gemini, the cost of "low-end" video game systems has fallen into *double*-digits.

Last year, Coleco ushered in the third generation of video games with ColecoVision. Gemini may not be as revolutionary as ColecoVision in an obvious way, but it is a good, solid, low-cost machine that will get support and supply competition for the seven-year-old Atari 2600. Maybe Gemini will open the door for others to manufacture video game systems that are similar to the Atari 2600. Even if it doesn't, the consumer will still have a choice between low-cost video game machines.

The sound module will allow Gemini owners and the millions of other Atari 2600 compatible system owners the opportunity to use the game machine for educational purposes at a low price. Even if the Gemini system and its peripheral(s) are not being as loudly announced as Coleco's other major machines, it's still a solid addition to their expanding lineup, and to the video entertainment/education market in general. ▲

Rites of Passage

(continued from page 22)

Another condition is an explicit agreement about royalties. Royalties should become the rule rather than the exception, and not just for the team leader, but shared by the entire design team. In addition, agreements about ancillary products, such as game title or character concept sales, cartoons, or cable/satellite transmissions should be covered.

In reality, the royalty structure will be dependent upon the popularity of the designer and the amount of risk incurred as well as development equipment supplied, by the manufacturer. For example, a proven home game designer, working on a system he purchased, should earn greater royalties than a novice coin-op designer who is supplied with an expensive development system and salary.

One last condition I would like to mention is the concept of a minimal guaranteed publicity and advertisement budget. Similar to author/publisher contracts, designers of home games should be guaranteed a minimum advertising and publicity budget to insure that a reasonable marketing effort will be put behind their creation.

Contracts that include finer points like these will surely bring about happier and more motivated design teams and inevitably, better and more creative video games.

At the conference, we mentioned earlier, the designers who attended shared a strong desire to organize a support group. (Something short of a union.) In fact, a group is now being created. I and some close associates are forming the Association of Videogame Designers for the purpose of:

- generating educational materials and services covering financial and creative aspects of video game design
- forming a referral service for entertainment attorneys and talent agencies qualified to represent game designers
- creating the "standard contract" guidelines for distribution to our members
- combatting against the manufacturer's refusal to acknowledge the full design teams of video games publicly. The Association plans to publish the
- assisting game designers in class action legal suits, if necessary, to help establish favorable legal precedents
- names of members of design teams to provide deserved recognition (in some cases, long overdue) in nationally distributed video game magazines such as *Video Games* in the future
- holding an industry awards ceremony to bring needed recognition for professional excellence by our peers, especially in areas too technical to be appreciated by the average player—brilliant software algorithms, hardware breakthroughs, and so on.

If you want to make a difference in our industry, joining or supporting the Association will help. This is a group started by designers, which exists solely for the benefit of designers.

Whether you're a budding games designer, or one with tenure, please respond to the address below. If you're interested in more information, or have suggestions, or need more help, contact us. If you're an entertainment attorney or a talent agent, or offer some service of benefit to games designers, feel free to send us literature about yourself to be included in our referral listings. If you designed a notable game, and you and your design team wish to have your credits published, let us know as soon as possible. All replies will be held in the strictest confidence.

A proven home game designer, working on a system he purchased, should earn greater royalties than a novice coin-op designer.

Thank you,

Moses Ma, Director
Association of Videogame Designers
P.O. Box 842
Huntington, CA. 92648

P.S. A special thanks to Scot Norris, and others.

Editor's Note: Moses Ma is presently a consultant in the videogame and computer graphics industries. ▲

Alternative Games

(continued from page 27)

Not all members of the travel and hotel industry are convinced of the value of games and information on the go, even if, as Altus and Air Video stress, it could help fill the 400,000-plus seats that fly from U.S. airports daily. For example, some hotels argue that few guests are ready to rent computer equipment, and they don't believe people are yet willing to pay for services most aren't accustomed to receiving in their homes. Many think truly widespread use of in-room computers and electronic information is years away. "I don't know that somebody wants to pay $5 to $7 to play video games in a hotel room," says a Ramada Inn spokeswoman.

Some also foresee systems causing billing and equipment problems. Republic Airlines, for one, has expressly banned the use of video games and portable computers (in-seat or otherwise) on all flights, contending that operation interferes with transmission of crucial flight information. Eastern, too, says it reserves the right to ask passengers to turn off equipment if it interferes with the pilot's operation. Dick Theriault, an Altus engineer, says his company is investigating the effects of high-power units on flight equipment. Airplay games, he says, do not generate enough power to cause interference problems.

Like Altus, other proponents rebut that on-line telecommunications is becoming pervasive in a society that is increasingly comfortable with and dependent upon computers, and that adjustments will be made to improve transmission and acceptance of remote communications at home, in the air and everywhere.

"We don't carry telephones around wherever we go because they're so widely available," comments Quazon's Lokey. "Similarly, at some point down the road terminals will become so abundant that nobody will need to carry one." Adds CVC's Segal, "Teledelivery is coming fast. The question of what it will deliver is already being answered. Pretty soon consumers won't care how or where they get their information and entertainment, as long as it comes to them in an economically viable and convenient form." Telecommunications, he believes, provides the ideal pipeline for the "information generation." ▲

STATS

Top Ten Home Games

Present Position 9/17/83	Last Position 9/3/83	Weeks on Chart	Game
1	4	5	Q*bert (Parker Brothers)
2	1	15	Enduro (Activision)
3	2	29	Ms. Pac-Man (Atari)
4	3	25	Centipede (Atari)
5	5	11	BurgerTime (Intellivision)
6	10	5	Pole Position (Atari)
7	9	9	Robot Tank (Activision)
8	8	9	Jungle Hunt (Atari)
9	11	51	Pitfall (Activision)
10	6	19	Keystone Kapers (Activ.)

© 1983 by Billboard Publications, Inc. Reprinted by permission. These are the best-selling video games compiled from outlets by the Billboard research department.

Top Arcade Games

	Percentage
1. Dragon's Lair (Cinematronics)	100.0
2. Star Wars (Atari)	87.9
3. Pole Position (Atari)	76.5
4. Star Trek (Sega)	63.9
5. Q*bert	55.5
6. Millipede (Atari)	55.0
7. Mario Bros. (Nintendo)	53.7
8. Turbo (Sega)	53.6
9. Frontline (Taito)	52.8
10. Xevious (Atari)	52.6
11. Sinistar (Williams)	51.4
Provisionally rated	
1. Championship Baseball (Sega)	68.2
2. Krull (Gottlieb)	66.6
3. Crystal Castles (Atari)	65.4
4. Fax (Exidy)	60.7
5. Buck Rogers (Sega)	55.4
6. Food Fight (Atari)	53.2
7. Zoo Keeper (Taito)	51.0

These are the top earning arcade games according to a poll of operators. Those with asterisks indicate operator responses were between 25-50 percent. © 1983 by Play Meter Magazine

HIGH SCORERS

(effective 10/15/83)

Baby Pac-Man	6,685,130	Richard Sattilaro Edison, N.J.
Bagman	6,840,850	Jerry McCloskey Pentieton, B.C. Canada
Buck Rogers	731,030	Bruce Borsato Trail, B.C. Canada
BurgerTime	5,882,950	Darren Kenney Lakewood, CA
Centipede	16,389,547	Jim Schneider Spring Valley, CA
Crystal Castles	823,840	Eric Ginner Milpitas, CA.
Champion Baseball	123,700	Gus Papas Upland, CA.
Defender	76,377,300	Bert Jennings Durham, North Carolina
Dig Dug	4,129,600	Ken Arthur Blacksburg, Va.
Donkey Kong Jr.	1,017,300	Joe Malasarte Anchorage, Alaska
Dragon's Lair	454,974	Steve Harris No. Kansas City, Missouri
Food Fight	16,725,700	Ken Okumura Santa Maria, CA
Frenzy	4,804,540	Mark Smith Shelby, No. Carolina
Frontline	727,500	John Dunlea Wilmington, No. Carolina
Gorf	2,220,000	Jason Smith Midland, Tx.
Gravitar	4,722,200	Raymond Mueller Boulder, Colo.
Gyruss	4,067,000	Tony Salisbury Salisbury, Md.
Guzzler	431,108	Mike Klug San Jose, Calif.
Joust (new chip)	98,565,550	Christian Gingras Quebec, Canada
Jungle Hunt/King	1,510,220	Michael Torcello East Rochester, N.Y.
Journey	12,181,850	Chuck Coss Stubenville, OH
Liberator	3,016,010	Sean Middleton Anchorage, Alaska
Lost Tomb	1,210,460	John Marks Parkersburg, W. Va.
Millipede	4,304,549	Ben Gold Stockton, Calif.
Moon Patrol (7 cars)	1,214,600	Mark Robichek Mountain View, Calif.
Ms. Pac-Man	419,950	Tom Asaki Ottumwa, Iowa
Munch Mobile	2,035,540	Ivan Luengas No. Miami Beach, Fla.
Motorace U.S.A.	1,219,400	Steve Harris Ottumwa, Iowa
Nibbler	838,322,160	Tom Asaki Bozeman, Montana
Pac-Man Plus	3,213,900	Shannon Ryan Upland, CA
Pengo (4 men)	809,990	Kevin Leisner Racine, Wisc.
Pole Position E.T. 215.71	66,760	Less Lagier San Jose, Calif.
Popeye	1,232,250	Steve Harris Ottumwa, Iowa
Q*bert	32,204,485	Mike Lee Richmond, B.C. Canada
Quantum	1,029,160	Judd Boone Moscow, Idaho
Robotron	348,691,680	Brian King Durham, N. Carolina
Satan's Hollow	43,086,600	Aaron Samuel Moscow, Idaho
Star Trek	46,330,500	Gary Hatt Upland, Calif.
Super Pac-Man	588,430	John Azzis Santa Maria, Calif.
Star Wars (6 shields)	1,568,660	John Frye Madison, Wisc.
Time Pilot	4,134,400	Bill Bradham Dubland, Ga.
Xevious	999,990	Don Morlan Seattle, Washington
Zoo Keeper	11,915,060	Roury Hill Myrtle Beach, N. Carolina

Our thanks to Walter Day Jr., of Twin Galaxies International Scoreboard (226 East Main St., Ottumwa, Iowa 52501). Readers who think they might have a high score should send a self-addressed, stamped envelope to Walter Day who will forward the necessary information and forms. Cities given are the locations where the high scores were achieved.

A Warner Communications Company

NEW FROM ATARI COIN VIDEO GAMES.

ATARI®

STAR WARS

DARTH VADER* beware! Get your hands on the action! Incredible graphic simulation, music and dialogue created from the movie, fantastic special effects you can't get at home . . . the STAR WARS game from Atari is a totally new age of coin video entertainment. Get into it where you play coin video games. Remember, THE FORCE* will be with you!

© 1983 Lucasfilm Ltd. and Atari, Inc. All rights reserved. *Trademarks of Lucasfilm Ltd., used by Atari Inc. under license.

*Pole Position is a trademark and © NAMCO 1983. Manufactured under license by ATARI, Inc. †Indicates a trademark of Sears Roebuck and Co. ©1983 Atari, Inc. All rights reserved.

NOW YOU CAN GET INTO POLE POSITION* AT HOME.

Prepare to qualify for Pole Position right in your living room. Because the #1 arcade hit of 1983 is now available for the ATARI® 2600™ Game and the Sears Video Arcade† systems. As well as an exclusive version for all ATARI Home Computers and the 5200™ SuperSystem.

No other racing game will demand your total concentration like Pole Position will. The hairpin curve will tax your reflexes. And avoiding accidents will challenge your ability to make split-second decisions.

Prepare yourself for the ultimate driving experience—Pole Position—the home version by Atari.

A Warner Communications Company **ATARI®**